



# OPERATOR

June 2002 Edition

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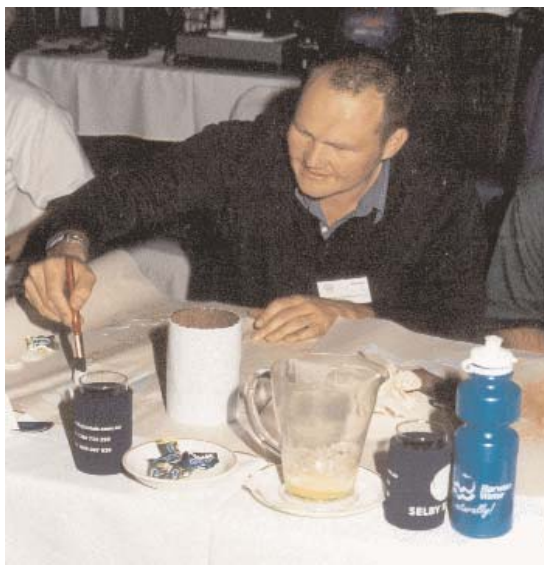
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Kindergarten fun at the Weekend Seminar. See report P.2



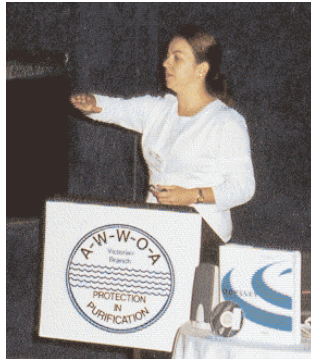
Selby Biolab presentation - Weekend Seminar .

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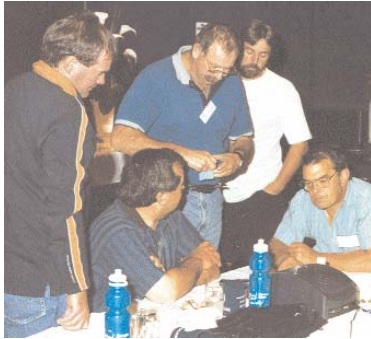
## SWAN HILL WEEKEND SEMINAR REPORT

The weekend of 27th and 28th of April saw 46 delegates attend the Weekend Seminar at the Sundowner Swan Hill Resort. From feedback received the weekend was well received and all sessions were of great interest.

Saturday commenced with a presentation by Margarita Vella (right) of Selby Biolab. Margarita, National Product Specialist Water Quality gave a presentation on the Hach Odyssey DR/2500 Spectrophotometer. The DR/2500 replaces the old Hach DR2010 Spectrophotometer that many present still use or have used in the past. All present had the opportunity to experience the many features of the



Odyssey DR/2500 during the hands-on section of the presentation. The Association thanks Margarita and Selby Biolab for their continuing support of our Association. Pictured left some of the delegates testing out the



with the floor of the room set up with butchers paper, pieces of rusty steel and pipes, rulers, paint brushes and film canisters. All was revealed once Rodney Wubben (right), Senior Corrosion, Coating and Materials Technologist, CorrCon Pty Ltd had given an introduction to corrosion problems within our industry.

From the two pictures below, it can be seen that the delegates gave it their all some I believe may have been reminiscing their days at primary school. But it was all serious business, as all of



us know corrosion is a big problem not only in our industry. The hands-on session involved the use of Hychem's 'Hychem TL5'. Surface preparation, as Rod stressed is the key to all repair applications. The session involved surface preparation of a piece rusty steel or pipe, mixing the product and application of the product. A follow up session was held on the Sunday to evaluate the results. I believe all would agree that the presentation gave us all a

great insight into on-site repairs that we could all carry out in our particular roles in the industry. Thank you to Rod for a very informative presentation.

The Saturday session ended with a presentation by that dynamic duo Stephen (Wilson) and John (Park) from the Water Industry Training Centre. They gave a run down on the new training packages and where we might all fit in. Talking about reminiscing John had quite a

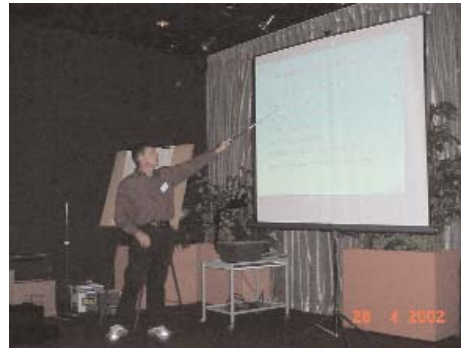


reminiscing weekend back in his old stamping ground, even at 2am on Sunday morning leading some of our delegates astray. Thank you to John and Stephen.

Saturday at 4.30pm saw the last AWWOA Annual General Meeting and the birth of the WIOA (Water Industry Operators Association of Australia) with the adoption of changes to the Association's constitution (see 'President's Prattle' and 'Secretary's Scrawl').

Days end came with some time to enjoy the resort's facilities, then the Seminar dinner and 'networking' sessions after. A great meal, good wines and good company would sum up the evening.

Sunday morning's traditional 'Brain Teaser' was dispensed with and the new section of the Weekend Seminar was once again held as it had been throughout the Saturday session. From one envelope the name of a Water Authority was drawn and then from another envelope a delegates from that Authority was drawn for 'Operators 5 minutes of Fame'. These segments were well presented by all those who had their names drawn out. Over the whole weekend quite a number of delegates had the opportunity to let all present know where they came from, their role in the Water Industry and even some opened up with more personal details. Congratulations to all those who participated.



The Sunday session commenced with Frank Pleavin (left) from ProMinent Fluid Controls presentation on 'The Selection and Application of Low and Medium Pressure UV Systems to Potable Water Disinfection.

The session covered 'Introduction to UV Disinfection', Advantages of UV Disinfection', 'Generation' both by low and medium pressure radiators and lamps, Design of Systems, Application of UV Radiation in water Treatment and Costing. A very comprehensive presentation and to Frank a continuing supporter of our Association thank you and ProMinent Fluid Controls.

To wrap up the very successful weekend Ed Tatti (right) from Air Met Scientific Pty Ltd gave a presentation of the companies' extensive range of equipment to measure and monitor hazardous substances and conditions in the workplace.



Ed's presentation included the latest in computer docking stations for gas monitoring equipment which ensures a complete history of all entries undertaken when using the gas monitoring equipment. Thank you to Ed and Airmet Scientific for their support of our Association.

I was unsure how the response to the weekend would be being held at Swan Hill but once again members have shown their support for these weekends many travelling great distances to participate. A great turn out once again. 2003 will see the Weekend Seminar move to Gippsland to be held at Rawson.

**Richard Greenhough**



## Editorial

Another bumper edition. Some members may now be receiving 'Operator' via email another great step forward. In this regard I should thank the efforts of my daughter, Melanie. It can be very hard to 'teach an old dog new tricks' and Melanie has been very patient with the 'old man'. New computer, new programs, new formatting, new everything but we have made it and hopefully my brain will survive.

Keep those articles coming in. If your authority puts out a press release please forward a copy via fax or email to 'The Editor'.

Don't forget the contact in your area for 'Operator' articles (refer P.7). The contact for the North East has now change to Roland Passeulo.

THE EDITOR

## President's Prattle

Here we are with another terrific newsletter, largely thanks to Richard Greenhough.

As you will see we have had another successful Weekend Seminar with those attending having a great time. These seminars give members the opportunity to network and socialize with fellow water industry members while being informed by trade presenters.



The AGM was held during the seminar and some important changes to the constitution were made. **"Water Industry Operators Association of Australia Incorporated" (WIOA).** A new Name and Logo that will give us the opportunity to, move ahead, is representative, and give us more opportunity to gain members from all around Australia.

The second edition of 'WaterWorks' will be out in June as a removable section in the centre of AWA's 'Water' journal. There are some very interesting articles from around the country, so please pass it on to others that may be interested when you have finished with it.

As always we need you the members to actively be involved in the relaying of information. This can be done in a number of ways, articles for 'WaterWorks', paper or poster presentations at the annual conference, news items and articles for 'Operator', or by just attending our events to meet and enjoy the company of fellow water industry people.

Happy operating!

**Russell Mack**  
WIOA President



### Around the Traps South East

East Gippsland Water, Gippsland Water, South  
Gippsland Water & Western Port Water

## GIPPSLAND WATER

A Rolling Summary Of Treatment Plants

**COONGULLA** - The operator reports that, "work has started on the construction of the shedding over the filter unit at Coongulla. So far the footings have been dug and concreted and the framework has all gone up.

The guys from GBG concreting had a tough slog with the footing holes which are about 500mm square and 700mm deep. The ground is mainly solid rock so they had to slowly chip away at it and three days

plus one spade bit later they had it all done ( 6 holes )."

**TRARALGON** - The plant is running well although we still have a sludge problem. Given time we will overcome this but, understanding what has caused all the problems at the plant recently has so far evaded us. We will prevail.

**TYERS** - A touch of home life with a new garden constructed to break the ice of the large amounts of road base everywhere now.

**MAFFRA** - The fluoride project is gaining momentum as the HAZOP (HAZards in OPERATION) review will be complete by the time you read this. This opens the way for work on the ground to commence.

**SALE** - A recent site visit opened my eyes as to what you can do with some paint and a little remodelling in the plants' Lab. Looks good.

## WESTERN PORT WATER

### Cowes Wastewater Treatment Plant Upgrade.

Cowes Wastewater Treatment Plant has undergone a major, \$1 million upgrade. The majority of the work was completed during the final months of 2001 so that the plant would be ready for the peak demand Christmas holiday period. The work ensures that the security and quality of the treatment process are guaranteed. It also means that the authority is well placed to meet any growth in demand for many years to come.

Authority CEO, Mike Paine said, "This plant had been in operation for 20 years and was struggling to meet the demands made particularly when there was an influx of visitors. To address this issue we've made an investment in some additional equipment such as larger aerators and lined the extended aeration sludge tank with concrete. However, essentially the key to the upgrade is really about building in the latest technology to help the plant work more efficiently in terms of both time and energy."

The increased, computerised monitoring means that all stages of the wastewater treatment process are part of the Authority's telemetry system. This has reduced the dependency on manual testing and overseeing of the plant. For example, probes automatically measure the amount of dissolved oxygen within the sewage. This information is fed back to the computer and the speed of the aerators is varied to supply more or less oxygen as required. It means that the treatment process is carried out in optimal conditions.



**Aerators are  
programmed to work at  
the optimal rate  
depending on the  
amount of dissolved  
oxygen in the sewage.**

The additional equipment and the commitment to the telemetry system necessitated a major upgrade to the electricity supply and a permanent generator was installed to act as an emergency supply during power failures. The generator will guarantee security of the treatment process.

"There have been benefits for our employees as well," said Mike. "The 24 hour on-site supervision of the plant during peak periods is no longer required. If a problem arises outside business hours then the telemetry system will raise an alarm and the rostered on-call team member can respond. This equates to a significant saving in employees' time."

**Brett Beamont, (right) Cowes Wastewater Treatment Plant Superintendent.**

If customers would like more information on this upgrade they are welcome to contact Rose Thomas, Customer Relations Manager on 5952 8114.



On the 15-04-02 the Water Treatment Group has had two vacuum cleaners from Neerim Sth WTP and Sale WTP die on them.

Realising that there was a two year warranty on the vacuum cleaners Russell Mack checked back through the paper work only to find that the warranty had expired on the 13-04-02. Missed by thattttt much.....!

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## Secretary's Scrawl

### Constitutional Review

Well, here's my first ramblings as Secretary of the new WIOA. This significant change has come about after many hours of work and as a result of some positive and forward thinking from our Committee and members. The changes to the constitution, adopted at our AGM at the recent Weekend Seminar, now give us the opportunity to significantly expand our member base and allow more people access to the services and benefits our Association has to offer.

I must say a big thank you to the constitutional review sub-committee comprising Richard Greenhough, Russell Mack and John Harris for their contribution to this process and for getting the Notice of Motions sorted out and submitted on time.

Recently we received a letter from the Department of Justice advising that they had received and reviewed the changes to our constitution from the Special Meeting in March 2001. Unfortunately, our revised Rules did not comply with the Incorporations Act, and as a result we have been advised that a number of direct clauses from the Model Rules are deemed to be included in our Constitution whether we like it or not.

The constitutional review sub-committee now has an extra task to perform and that is to get the new constitution document into an appropriate order given the unanticipated extra changes. As soon as the constitution is finalised, a copy will be sent to all Members and it will posted to our Website.

### Member Survey

The Committee has been very busy with a number of other issues and unfortunately time has escaped. The promised full report on the results of the member survey is yet to be completed. We will get this finalised as soon as possible, and get it out to members.



### 2002 Conference

Arrangements are well under way for the 65th Annual Water Industry Engineers and Operators Conference to be held on the 4th and 5th September, 2002 in Geelong and hosted by Barwon Water.

This year we received nine abstracts from Operators wanting to present platform papers. This is by far the highest number that I can recall and its great to see the operators putting their hand up and having a go. As usual, Actizyme will be generously providing cash Awards for the Best Operator Papers with \$1,000 and a plaque to the winner, and second and third prizes as well. We appreciate this ongoing support and perhaps you could check out their products if you get the opportunity. This goes for all our sponsors and supporters!!!

The "Operator's Poster Paper" section will continue and is again being sponsored by the Water Industry Training Centre. A plaque and \$500 cash will go to the winner, \$200 for runner-up and \$100 for third. Information will be sent out soon for this category but you can get more details from me if required.

Looking through the abstracts, we again have an excellent range of topics and speakers and you need to start working on your boss now to make sure you don't miss out on attending. We need the support of Operators to make the conference successful in 2002.

Registration forms will be mailed out in July, once the program for the conference has been finalised.

### Conference 2003

We are still open to suggestions on a venue and offers to Host the 2003 Conference. If you think you know of a largish venue in your Authority area, and your Authority may be interested in hosting the conference, perhaps you could give me a ring.

### Golf Day

Russell Mack has been busy and has already "teed up" the 2002 Charity Golf Day. It will be staged at Trafalgar GC on Sunday 3rd November, 2002 (Melbourne Cup weekend). Put this date in your diary now and start saving up those "Brownie Points" at home so you can attend.



### WaterWorks

The second edition of WaterWorks is due to be printed in June 2002 so look out for it in the mail. You'll notice some changes to it this time and we've included some "operator" profiles and photos. Check out Pat Davis' shirt - he's started a real tradition at the Weekend Seminar and I'm sure he thinks the Saturday dinner is fancy dress Waikiki style!

As with this newsletter, we need your contributions for WaterWorks to be successful so put pen to paper and fill us in on what you are doing in your area.

### New Members

Welcome to the following people who have recently joined our Association : Nathan Pengelly, Peter Kanter, Jill Busch, Kristine Hunter, Margarita Vella, Dale Rogers, Rodney Wubben, Simon McCracken, Ivan Wild.



And the following new Corporate members : Air Liquide, Grampians Water, Action Controls, ITT Flygt, Fluidquip,

**George Wall**  
WIOA Secretary

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### MERCK PRESS RELEASE

New modular 'multiparameter' On line system

WTW (Germany) have launched the *IQ SensorNet* on-line system for water and wastewater monitoring that breaks many traditional barriers in the industry.

The system is totally modular in design, permitting monitoring from up to twenty sensors at one time, with stackable modules for sensor status display, power and communications. Connection between modules is by a simple two wire shielded digital cable that enables reliable communication for up to 1000 meters (or more).

The benefits of this concept are numerous. Since there is no more the necessity to dedicate a single sensor to a single transmitter 'box' and being a totally 'digital' network, there is no problem in moving sensors or display terminals from one location to another in the network. Furthermore, less 'boxes' means less space for mounting and much lower power consumption - important for use in remote monitoring locations.

The initial investment is also comparatively lower than a conventional system, particularly when a number of parameters and/or monitoring points at various locations are required. Furthermore future expansion can be as simple as purchasing only additional sensors and connecting to the existing network.

Along with the new system a brand new Turbidity/Solids sensor has been launched with a revolutionary self cleaning design based on ultrasound technology and requiring no moving parts. No more scratched windows and broken wiper arms!

Further information can be obtained from **Merck Australia**.

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**'OPERATOR' is printed by Barwon Region Water Authority. The WIOA gratefully acknowledges the support provided by Barwon Water in producing 'Operator'**



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### Around the Traps Central

Barwon Water, Western Water & Metropolitan  
Water Companies

## Barwon Water Major Sewer Projects

Barwon Water will use the latest technology to repair key sections of Geelong's main trunk sewer. A 160-metre section of the sewer, south of the Macintyre Bridge, will be relined with PVC using a specially designed winding machine. The relining, costing \$500,000, is expected to extend the life of the sewer by more than 50 years.

Barwon Water Chief Executive Dennis Brockenshire said the sections to be repaired had been selected for relining to increase the sewer's life, minimise environmental impact and avoid interruptions to customers. He said repairs would not disrupt the overall system or unduly inconvenience local residents. Repairs would be undertaken during low sewage flows and would not require bypass pumping or significant trenching. Mr Brockenshire said the site was being secured and prepared before the relining operation, which was expected to commence in late February. Work would take a week with landscaping to re-instate the site completed in March. Other sections of the main sewer would be relined over the next 12 months, he said.

Additional capital works, including the replacement of Geelong's second largest sewer, have been planned to meet the demands of urban growth and industrial development. The \$7 million project to replace the 85-year-old southern ovoid sewer between the Geelong Racecourse and Reserve Road, Marshall, began recently. Work on a 1.2km section of the sewer between the racecourse and Leather Street, Breakwater, which includes a 134-metre tunnel under the racecourse, is scheduled for completion this year. A 1.5km section from the Barwon River to Reserve Road will be replaced next year.

Mr Brockenshire said the new sewer would cater for regional growth, particularly in areas such as Leopold, Drysdale and Clifton Springs. The sewer also would ease pressure on the main sewer with a cross connection planned between the Macintyre Bridge and the racecourse.

The outfall sewer repairs and ovoid sewer replacement were part of Barwon Water's overall sewerage strategy to ensure the authority continued to meet residential and industrial growth in an economic and environmentally responsible manner.

Mr Brockenshire said Barwon Water's Capital Works Investment Plan allocated \$25 million to the Geelong Trunk Sewer Strategy over the next 10 years.

**Barwon Water Press Release February 15, 2002**

## Outfall Sewer Emergency Renewal

The benefits of trenchless technology were demonstrated recently when a large section of 1050 and 1350mm diameter sewer pipeline failed in Geelong. The failure occurred when a section of reinforced concrete pipeline collapsed after heavy rainfall that followed a period of prolonged drought. Quick work by Barwon Water employees to clear the blockage, stabilise and cover the hole prevented further damage and stopped raw sewage from overflowing into the nearby Barwon River.



Once the site was stabilised, a search commenced to identify a permanent structural repair for the 160-metre long section of deteriorated sewer. The pipeline's depth and residential street location meant repairs would need to be made with minimal excavation - preferably none. In addition, the main had to continue to function during repairs, however, total by-pass pumping was not an option.

As such, repairs could only be made at night during an eight-hour period of low flow. Discharge from two nearby local pumping stations also had to be controlled during repairs. Any solution had to assume the host pipe was severely deteriorated and had no remaining strength.

Barwon Water was aware of the Rib Loc "Rotaloc" system, supplied in Australia by Melbourne based Interflow Pty Ltd. The system has been used successfully to line large-diameter stormwater pipelines under low-flow conditions in Melbourne. Rotaloc is a spirally wound PVC liner which is installed by a winding machine travelling inside the compromised pipeline. The pipe is not blocked during installation and, while flows need to be managed, the pipeline is not taken out of service.

Inspection of Barwon Water's pipeline confirmed structural lining with the Rib Loc Rotaloc system was possible under the project's unusual circumstances, including the assumption the pipeline had no strength. The first challenge was the removal of debris from the outfall sewer pipe (above - sample of material removed). Following the successful removal of more than 40-cubic-metres of material, installation of the liner began.



Services to customers were maintained throughout the project. All work associated with relining was carried out after 10pm during periods of low flow. Each night, winding of the liner would temporarily cease while pump stations relieved upstream storage capacity until flow subsided. Once the lining was installed a



cementitious grout was injected into voids external to the host pipe and around the new liner.

The project was completed on March 20, with the damaged sewer successfully repaired with minimal inconvenience to the community.

**Contributed by Graham Thomson**  
**Risk Management Technical Officer**  
**Sewerage Operations**  
**Barwon Water**

## Water Conservation Co-operation

Barwon Water and South East Water have joined forces to spread the water conservation message. A recent Sustainable Living Fair in Melbourne, where a wide-range of environmentally friendly living tips and ideas were promoted, featured 'Water' as a key theme and provided an ideal opportunity to draw community attention to the need for water conservation.

During the fair, South East Water conducted a water conservation competition, the winner of which is Tiffany Gunning, of Anglesea. Ms Gunning receives a 600-litre rainwater tank donated by South East Water and installed by Barwon Water.

Barwon Water and South East Water executives Grant Green and Murray Goddard presented Ms Gunning with her prize today.

Mr Green in congratulating Ms Gunning said that while regional storages were currently in a healthy state, the community should continue to adopt good watering practices.

"Water should be conserved at all times, not just during drought. It is pleasing to see the co-operation between water authorities and the State Government in promoting the need for ongoing conservation of a precious resource," he said.

**Barwon Water Press Release February 20, 2002**

## Apollo Bay Restrictions Lifted

Water restrictions in Apollo Bay, Marengo and Skenes Creek will be lifted from 1am, Monday, May 6, 2002. The decision follows the success of Stage 1 restrictions, introduced in December, and a mild summer, which has seen consumption fall by nearly 10 per cent from the corresponding period last year. Despite recent low rainfall, the Marengo storage is holding 43 per cent capacity, six per cent above the April storage volume target.

Barwon Water Chairman Stephen Vaughan said the authority was pleased with the performance of the supply system over the restriction period. "After a few weeks of lower than expected consumption before Christmas, the storage has generally followed expected trends," Mr Vaughan said. "I thank the community for their support and co-operation in reducing water usage, but appeal to all customers to continue to be conscious of water conservation to ensure supplies continue to recover."

Mr Vaughan said a temporary pumping station installed on the Barham River in December had not been used to boost supplies as storage volumes were above target throughout summer. He said a small amount of pumping would be required before next summer to ensure the basin was full before the start of the busy tourist season. Barwon Water will continue to closely monitor storage behaviour and weather conditions.

To meet Apollo Bay's long-term supply needs, Barwon Water has released a draft report titled Water Resources Development Plan for Coastal Townships. The plan features a preferred option of pumping water from the Barham River to a new off-stream storage to double supply capacity.

Public comment on the plan has been received and Barwon Water's Board is expected to adopt a final plan soon.

**Barwon Water Press Release April 30, 2002**



**NEXT EDITION**

**Article Contribution Deadline**  
**For the August Edition**  
**July 20**

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## WATER INDUSTRY TRAINING CENTRE

### February Edition Crossword Answers

1	C	O	D		A	E	R	O	B	E	
			E		C				A		8
9	N	U	T	R	I	E	N	T	S		R
	O		R		D		U		E	O	E
	M		I				M				A
12	O	R	T	H	O		B	L	A	N	K
	G		U			15	F		B		P
16	R	E	S	I	D	U	A	L	S		O
	A				19	U	S		E		20
21	M	O	T	I	L	E		A			N
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This is the second edition of "The Chemistry of Water" which is a basic summary of water chemistry tests commonly performed by WSL Consultants' analytical laboratories for the water industry. The purpose of this series of articles is to allow treatment plant operators to gain a better understanding of relevant water chemistry facts. WSL has been performing water and wastewater analysis throughout Victoria for 35 years.

## What Phosphorus is that?

Phosphorus in natural waters and wastewaters exists almost entirely as phosphates. These are classified as **orthophosphates**, **condensed phosphates** and **organically bound phosphates**. These forms of phosphate arise from a variety of sources. Small amounts of orthophosphate or certain condensed phosphates are added to some water supplies during treatment. Larger quantities of the same compounds may be added when the water is used for laundering, or other cleaning purposes, because these materials are excellent water softening agents and, as such, are major constituents of many commercially available cleaning preparations. Phosphates are used extensively in the treatment of boiler waters to prevent or reduce scaling and corrosion. Orthophosphates applied to agricultural or residential cultivated land as fertilisers are carried into surface waters with storm water runoff. Organic phosphates are formed primarily by biological processes. They are contributed to sewage by body wastes and food residues, and also may be formed from orthophosphates in biological treatment processes or by receiving water biota.

Phosphorus is essential to the growth of organisms and can be the nutrient that limits the productivity of a body of water. In instances where phosphate is a growth-limiting nutrient, the discharge of raw or treated wastewater, agricultural drainage, or certain industrial wastes to that water may stimulate the growth of aquatic micro-organisms in nuisance quantities, such as blue-green algae.

## Testing in the Laboratory

Although phosphorus can be classified as orthophosphates, condensed phosphates and organically bound phosphates, there are only two common laboratory tests for the determination of phosphorus. The first test is known as **total phosphorus** and the second is **orthophosphate** (also known as reactive phosphorus).

The **total phosphorus** test consists of two steps. The first step is to prepare the sample by oxidising organically bound phosphates and condensed phosphates to orthophosphate. The second step is to determine the total amount of phosphorus present, which is now all in the form of orthophosphate, via a colorimetric technique. If the first step is bypassed, only **orthophosphate**, originally present in the sample, is determined.

Laboratory analysis of total phosphorus and orthophosphate is usually reported in terms of the elemental amount of phosphorus.

- > Total P (Total Phosphorus as Phosphorus)
- > PO4-P (Orthophosphate as Phosphorus)

If anyone has any questions regarding water or wastewater testing, please contact or Nick Bray, Manager of Chemistry ([nbray@wsl.com.au](mailto:nbray@wsl.com.au)) or Patrick Maiden, Senior Biologist ([pm Maiden@wsl.com.au](mailto:pm Maiden@wsl.com.au)).



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**Around the Traps  
Private Industry**

## PROFILE OF AN OPERATOR

This is the third article in a series of interviews titled 'Profile of an Operator' specifically dedicated to water and wastewater operators in the private industry.

### Profile: Jason Krzciuk



- > Works for Vivendi Water (Kyneton WWTP)
- > Job title - Wastewater Manager
- > Main role - Wastewater Treatment
- > Lives in Bendigo, VIC
- > Sports - lawn bowls
- > Hobbies - model aircraft, time with family

## How did you become an operator?

I was initially trained as a fitter and turner. My first job was with Asset Services where I spent 5 years dealing with a variety of work. After that I spent another 5 years with Serco in Puckapunyal. This is where I was introduced to the water and wastewater side of things, dealing with pump breakdowns, blockages etc. After Serco I became an employee of Goulburn Valley Water on the maintenance crew. I spent 2 months in this position and then became a full time water treatment operator, where I spent the next 18 months. After this a vacancy opportunity came up with Vivendi Water. I was interested, applied and was accepted. My major role at present is with waste water operations at Kyneton WWTP.

## Describe Vivendi Waters main business activities?

In the Bendigo region Vivendi Water is involved with the Coliban Water "Aqua 2000" Project which is a BOOT project. This was awarded to Vivendi Water for the design, construction and 25 year operation of three water treatment plants of capacity 7.7ML/day at Kyneton, 18.4ML/day at Castlemaine and 126ML/day in Bendigo including reticulation pipework. I am involved in the Kyneton wastewater DBO (design, build and operate) project. General Water is the operating company for Vivendi Water. We also operates treatment plants at Noosa, Beenleigh, Illawarra, Woronora and shortly Geeringong.



## Can you tell me a little about the Kyneton Wastewater Treatment Plant?

The treatment plant required upgrading to cope with increasing populations and also the EPA licencing to take affect in December 2005. The plant was commissioned in March 2002. The plant is split into two separate flows - domestic and industrial. The existing plant was upgraded to deal with the industrial waste. Domestic wastewater is treated using a BIODENIPHO BNR process designed for 2.66ML/day. Discharge can occur either to the Campaspe River or via flood irrigation to 23ha of land. The other part of the plant deals with the industrial wastes which mainly come from abattoirs and is designed for 0.7ML/day. Effluent from this part of the plant can be spray irrigated onto 11.5ha of land.



## What are the major challenges you face in your role?

I am currently completing my Diploma of Laboratory Technology at Bendigo Regional Institute of TAFE. Personally, I hope to go as far as possible in the company. The major challenge at this plant and for the Vivendi team is to meet the stringent guidelines set by the EPA.

**Cynthia Lim and WIOA would like to thank  
Jason Krzciuk and Vivendi Water.**



### Around the Traps North East

North East Water, Goulburn Valley Water,  
Coliban Water & Mt. Buller Resort  
Management Board



## MEDIA RELEASE 7th of April 2002

Mt Buller Resort Management is currently developing a wastewater treatment system that utilizes recycled water for snowmaking.

The project has been in development for two years with the assistance of a \$72,220 grant from the Victorian State Government for the trial of an ultra-filtration plant.

The trial, which has the support of both the EPA and the Department of Human Services, will see wastewater treated through a tertiary wastewater treatment plant to reduce nutrient levels then disinfected by passing the water through UV processes and a pilot ultra-filtration plant. The ultra filtration component of the process involves passing the treated water through a membrane capable of removing spores, bacteria and viruses. The final product is crystal clear water.

Mt Buller generates 175 ML of treated effluent per year with around 70% of this produced over winter. Utilizing treated wastewater for snowmaking is estimated to cover around 10% of the resort's daily snowmaking needs.

Resort Technical Services Manager, David Westphalen, said that: "The trial of the ultra-filtration plant has been in progress for two years and is now concluding. The results will be passed to various government departments for sign off and final approvals of the process. Depending on funding, it is envisaged that it will be at least three to four years before the process is actually put into practice."

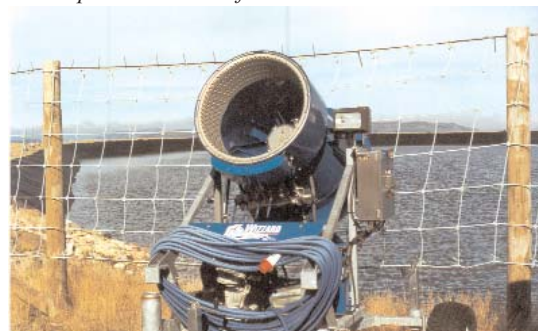
For further information, contact David Westphalen, Resort Management Board Technical Services Manager, on 03 5777 6077 or via email at [david@mtbuller.com.au](mailto:david@mtbuller.com.au).

## Editor's Note

*The Mt. Buller Resort Management Board media release brings back memories of the first Weekend Seminar, held in 1997 at Pinnacle Valley Resort.*



*At the conclusion of the seminar delegates were invited by Stephen Holland to inspect the resort's facilities.*



*A very informative and enjoyable tour was conducted of the water storage and the snow making equipment.*

## EXPRESSIONS OF INTEREST 2003 WEEKEND SEMINAR

Expression of interest are sought from trade organization for the 2003 Weekend Seminar.

### Venue

Rawson Village, Rawson - Gippsland

### Date

Saturday, March 29 and Sunday, March 30, 2003

Iwaki Pumps Australia Pty Ltd have indicated that they will be a Trade Presentors next year so we are seeking another three presentors.

As we only permit one company of a particular product or service to be a presenter I am seeking companies other than pump manufacturers or suppliers.

If you are interested or require further information please contact  
Richard Greenhough  
mobile: 0418 569183, ph (03) 5226 9236, fax: (03) 5226 9262 or  
email: [richard.greenhough@barwonwater.vic.gov.au](mailto:richard.greenhough@barwonwater.vic.gov.au).

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