OPERATOR

May 2014 Edition



Inside

| From the EO's Desk | 2 |
|----------------------------------|---------|
| Profile of a Committee Member | 3 |
| 2014 NSW Conference Report | 4-5 |
| New Utility Corporate Members | 7 |
| Upgrade to Sludge System | 7 |
| 2014 NSW Operator of the Year | 8 |
| National Water Account 2013 | 9 |
| Birds Eye View | . 10-11 |
| The Bega Valley is Top in Taste. | 12 |
| WIOA QLD Charity Bowls Day | 13 |
| WIOA AGM | . 14-15 |
| Tasmanian News | 16 |
| Advertising with WIOA Works | 17 |
| Corporate Member News | 18 |
| Instrumentation Tips | 19 |
| New Members | 20 |



What are these bunnies up to - not the three amigos, the three Johns - see page 13.

Terry Randall (r), winner of the Ecolab prize in NSW. More details page 4.





The Bega Valley boys form a scrum to celebrate the best tasting water in NSW. Read all about the taste test on page 12.

Newsletter of the WATER INDUSTRY OPERATORS ASSOCIATION OF AUSTRALIA

FROM THE EO'S DESK

The old adage "time flies when you're having fun" is very true, but it seems that time can go equally as quickly when you are really busy. The WIOA calendar has been jam packed since the February edition of Operator went to print and it doesn't look like slowing down any time soon.

Our Annual General Meeting and weekend seminar were held in early March. Following an election due to more nominees than vacant positions, Mark Samblebe from Aeramix was welcomed onto the WIOA Committee. We farewelled John Allen and thanked him for his efforts over the past 3 years. The assembled members were treated to some excellent technical and product presentations, some informative exchange of information in the open forum and some homemade fun at the dinner. A report on all the goings on appears later in this edition.

Also in March, there were a number of events staged around the country. Veolia Water hosted a second membrane operation day at their Castlemaine WTP in Victoria; an Interest Day and plant tour was held at the Waratah WTP in Tasmania; and our Queensland Advisory Committee successfully staged their second annual Charity Bowls Day in Yandina. WIOA also presented at the AWA Regional Seminar in Wagga Wagga.

In the first week of April we staged our NSW conference in Orange for the first time. It was a great success with record delegate numbers and has provided a sound base to grow future NSW events on. Our thanks are again extended to our excellent Hosts in the Orange City Council, along with all our sponsors, exhibitors and delegates. The award winners announced at the NSW conference also deserve our heartfelt congratulations.

By the time you receive this edition, we'll just about be on our way to another first time conference venue in Queensland at the Logan metro Sports Centre. This conference is also shaping up well with a sell-out exhibition, a diverse line up of presenters covering a wide range of topics including input from operations staff from a number of Queensland Councils. Delegate and visitor registrations are still being accepted with registration forms available from the website.

The exhibition sites for the Victorian conference were put on sale in early May and all 180 spots were snapped up in just 4 days and we now have a lengthy waiting list of companies hoping to attend. We know that economically, things are pretty tough out there so we are taking this support to be a strong endorsement of our conferences and the formula we have developed for running them over a number of years. It is important that all WIOA members attend these events if possible, either as a delegate or a day visitor. We also need you, our members, to help promote the events as widely as possible to your water industry peers even if you can't get there yourself, to help make the conferences a success.

WIOA continued working with a range of organisations on the operator certification schemes in both Victoria and nationally. There were a number of new applications received from operators under the WIOA Victorian Certification Scheme and these are currently being processed.

WIOA has continued to work with the Queensland Water Directorate and a number of Queensland water businesses on a Pilot Project to certify operators against the requirements of the National Certification Framework 2012 – Operators within Drinking Water Treatment Systems. We plan to hold a special certification presentation ceremony in Queensland a little later in the year once some more operators complete their training.

WIOA is also working with senior water representatives in the ACT and a number of NSW Councils to assist them prepare for the potential implementation of Certification nationally. WIOA's also participated as a panel member in a certification seminar held as part of OzWater in Brisbane.

A group of 10 Australian operators, including award winners from NSW, Qld and Tasmania, headed off to New Zealand in early May for the annual 8 day tour of NZ water and wastewater plants. This year, the tour visited plants on the North Island before joining our Kiwi cousins at their annual operations conference at Wairakei, near Taupo. Once again the WIOG team did a fantastic job not only in organising and hosting the tour, but by running such a successful conference with 100% volunteer staff. One of the tour members will provide a report in the August edition of Operator.

Following on from a project we completed in 2013 to run some introduction to water and wastewater training seminars for remote and aboriginal communities in Far North Queensland, WIOA has again been contracted by the DLGCRR for the delivery of three, one day, lagoon based training seminars. This training will be delivered in Woorabinda in May and in Yarrabah (near Cairns) and Napranum (near Weipa) in June.

We are really excited that the second book in our wastewater series, the "Practical Guide to the Operation and Optimisation of Activated Sludge Waste Treatment Systems" is all but finished and will be released very shortly. Keep your eye out for it around June.

The final item to report to members is that WIOA is represented on some technical reference groups convened by GSA to assist with the review and update of the training units in the National Water Package. We will certainly be calling on members in the near future to provide feedback on the work being undertaken to make sure that it suits all water enterprises.

Until next time,

George Wall – WIOA Executive Officer

THE LIGHTER SIDE

How to catch a cat:

- 1. Find an empty box
- 2. Wait...



PROFILE OF A MEMBER



Name: Mark Samblebe Position: Manager -

Technical Services and Innovation

Employer: Aeramix

How long have you worked in the water industry and what attracted you to it?

I've been in the industry for around 17 years now, initially the key attraction was the fact that I didn't know much about it, despite studying Aquatic Science at University and doing water and wastewater treatment units, the reality of going from text book and laboratory to real life scale was ample brain food. I actually fell into it when I

was offered work with Deakin University on an Aquaculture project growing fish in industrial and domestic wastewater treatment systems for cat food. Having many thousands of fish pass on to the next life forced me to investigate the WWTP processes and identify the cause of failures that led to poor water quality in tertiary lagoons. I then became interested in working out how such events could be avoided. North East Water then gave me the opportunity to fulfil that desire as Water and Wastewater Treatment Technologist.

What do you enjoy most about your job?

I enjoy the people, in particular operations staff that all have such a high commitment to providing the best water possible, they're also some of the funniest people I've ever met. I like learning from different operators and engineers, investigating options and trying to find the best possible solution with all stakeholder knowledge in play. In my opinion operators are an undervalued asset to the industry. The team at Aeramix is fantastic, they have a great teamwork ethos, led by a motivating CEO and board, and the boys love to get in and get things done in an efficient way with a quality finish.

What are the major challenges in your current role?

Going home at the end of the day!! I love it that much... Actually, in my current role which is quite new, I have a lot of business development work to do in establishing this new service division as well as supporting their existing activities in infrastructure integration, design & construction. I'm enjoying the challenging aspects of business development and marketing, developing business plans, strategies and material to get the word out.

How long have you been a WIOA member?

I think about 12 or 13 years? I was thrilled to be elected to the WIOA General Committee earlier this year, and am hoping to provide some value to the organisation assisting in increasing its membership base and strengthening its position as a highly regarded and recognised national entity here to support operations staff and disseminate knowledge. I have presented four papers at WIOA conferences and contributed to a few more over the years, my key highlight being awarded the Hepburn Prize for best paper and presentation in 2007.

How do you relax?

BBQ's, camping, surfing, cooking and eating good food, playing with my three AWESOME Kids! Catching up with friends and quietly watching Mother Nature change the scenery from our balcony.

Where do you live and what's the best thing about it?

I live in Yinnar South (Gippsland), the best thing is, that it's quiet, we can't see any neighbours, we back onto bush which is great for casual walks, and plenty of room for our animals (2 x horses, 1 x Pony, 3 x miniature horses, 2 x dogs and 1 x goat and we've let 2 friends go in the last couple of months).

QUICK QUESTIONS

Age: 40

Nickname: Sambo, Bunch or Duncan (depending which

group of colleagues/friends)

Family Status: Very Happily Married – 3 great kids.

Pets: Too many - Pony for sale!

Favourite food: Bruschetta, eye fillet steak, gourmet

homemade pizza

Least favourite food: Brussel sprouts (if you can call them

food!)

Favourite TV show: Iron Chef (love the American voice

overs!) or something funny like The Chaser

Worst TV show: Big Brother.
Favourite Movie: The Hangover

Favourite Musical artist/s: Tex Perkins, The Cruel Sea or

INXS.

Favourite book: Ten in the Meadow or my Father Son Read

Aloud Stories book.

Favourite team: The A-team (that's the "A"eramix team), or the Bombers, but they lost some sparkle last year.

the bollibers, but they lost some sparkle last year.

Ambition in life: To make a difference for the better and be the best dad and husband I can.

Hobbies: Landscaping and gardening, renovating and DIY and model aeroplanes.

Best Trait: Inquisitive, Sense of Humour, hard working.

Worst Trait: High expectations –I can be hard to please.

Four people to invite to dinner: Brooke, Jasmine, Cody and Ruben, or if my family is out, Tex Perkins, Mark Occhilupo, Michael Jordan and perhaps Col Elliot for some laughs.

2014 NSW CONFERENCE REPORT



The 8th Annual WIOA NSW Water Industry Operations Conference and Exhibition was staged at the Orange PCYC on 2 & 3 April 2014. Our registered delegate numbers were up on recent years and saw delegates in attendance from 48 councils

and water/wastewater service providers representing 5 states and territories.

All up, over 600 people attend the conference and exhibition. We were well supported by the Orange City Council who hosted this event and went the extra yard to help make the event a success.



Stewart Kreltszheim shares lessons in leadership from Victoria's Black Saturday & Kokoda

Delegates were officially welcome by the Mayor of Orange, Councillor John Davis, and the conference keynote address was delivered by Mr Stewart Kreltszheim from the Country Fire Authority in Victoria who shared some of his experiences and issues in leadership from Kokoda to Kilmore. Stewart's presentation had even the most hardened water operators almost in tears.

The conference culminated in the Awards Dinner on Thursday evening where **Todd Pattison** from Wyong Shire Council was named as winner of the 2014 NSW Operator of the Year. Todd was up against a high quality field of operators and our congratulations are extended to all the nominees and their nominating councils.



NSW 2014 Conference - Orange PCYC

2014 NSW AWARD WINNERS

NSW Operator of the Year

Todd Pattison from Wyong Shire Council

Ecolab Prize for Best Paper by an Operator

1st Terry Randall from Port Macquarie-Hastings Council

2nd Luke Stitt from ACTEW Water

3rd Danny Roberts from Port Macquarie-Hastings Council

IWAKI PUMPS AUSTRALIA for Best Paper Overall

Terry Randall from Port Macquarie-Hastings Council

WIOA Prize for Best Poster by an Operator

1st Darren Sutherland from Kempsey Shire Council2nd Pat Welsh & Lindsay Walsh from MidCoast Water

WIOA Conference Charity

\$1,500 presented to the Premi-Babes Association of Orange

Ron Bergmeier Award - Best Exhibition Site

SFI Australia Valvemax

PASS Award 2014

Lester Little from TASWater

Orica NSW 2014 Water Taste Test - Winner

Bega Valley Shire Council

Orica NSW 2014 Water Taste Test – Finalists

- Bega Valley Shire Council
- Nambucca Shire Council
- Orange City Council
- Wingecarribee Shire Council





Todd Pattison (L), NSW Operator of the Year, with NSW Water Directorate CEO Gary Mitchell





Alex Maderasi (L) congratulates Terry Randall from Port Macquarie-Hastings Council, winner of the Best Operator Paper





Terry Randall (R) from Port Macquarie-Hastings Council is congratulated by Ross Waterhouse from Iwaki Pumps for the Best Paper Overall





Winner of Best Poster by an Operator Darren Sutherland (L) from Kempsey Shire Council with George Wall









NSW 2014 CONFERENCE FEEDBACK

Exhibitors

Awesome attention to detail by the WIOA staff and volunteers made the Orange conference a great event. They even went around and warned us about a rainy pack up day.

Manfred Glombowski, Thermo Fisher Scientific

The conference is a great opportunity for us to meet with our customers who are located all around NSW and often it is difficult to meet with them through the year because they are a long way from Sydney.

Herman D'Souza, Orica Chemicals

We attract on average 6-8 good visits to our stand. Over the 2 days that equates to around 15 customers. Some are existing and some new. We would never be able call on that number of customers in 2 months. Our customers look forward to meeting us at the conferences.

Alan Neethling, DCM Process Control

The WIOA conference is a terrific event for catching up with the operators on a social level - a great bunch of blokes.

Gavin Buchan, Aquatec Maxcon

WIOA regional exhibitions have been very beneficial promoting Franklin Electric Australia - Electric motors, Pumps, Controls. The venue enables us to be able to display and demonstrate our product lines to the Water Industry Operators in addition to Consultants and Design staff.

Glen Carolan, Franklin Electric Australia



The Lauchlan Shire boys hook into the oysters provided by Xylem



Greg Hayes entertains the crowd at the Meet the Exhibitors Dinner on Wednesday

Delegates

I have been going to WIOA conferences for many years now and have seen it grow to be one of the feature events on the water and wastewater calendar. Keep the great work up WIOA, it is tremendous for the operators and the industry. This is my last conference, I will miss the comaraderie but you've got to retire sometime. All the best George and the team at WIOA and keep up the good work.

Garry Northam, MidCoast Water

The conference was very informative and gave good insights into the challenges and responsibilities of water operations and operators. It's a shame the general public may not fully appreciate the professional efforts these guys put in for them every day.

Warren Walsh, Hardman

I would recommend the conference to anyone in the water or wastewater industry. Excellent venue and excellent opportunity to meet new industry contacts and suppliers of products.

The continual advancement in technology and treatment processes on display and discussed at the conference gives everyone an opportunity to see these within this environment. Talking to the suppliers with relevant expertise assists me with decisions on improvements in the future. Everyone in the water and wastewater operations area should have an opportunity to attend this wonderful event as I am sure they will learn something new from it.

Lester Little. TasWater

This was a great activity to be involved in as both a delegate and as a volunteer.

Doug Moorby, Narromine Shire Council

WIOA has again put on a great conference. Record delegate attendance would suggest we are doing something right. **Lindsay Walsh, MidCoast Water**

The conference is a must attend for any water /sewer operational staff as the networking, papers and product displays can open windows for changes and improvements to current work practices and systems.

Bob Palmer, Port Macquarie Hastings Council

Extremely helpful and interested support staff. Very well prepared, very professional, fantastic 'care factor' from all involved - an amazing presentation from guest speaker Stewart Kreltszheim - even the food was great! Congratulations to the entire WIOA team.

Rex Wilson, TWS

The WIOA conference provides a great opportunity for water industry operations staff to: Meet and share ideas and experiences with industry peers. See the latest technologies and products. Build contacts and networks throughout the industry and work on personal Professional development.

Danny Roberts. Port Macquarie Hastings Council

WUJAL WUJAL ABORIGINAL SHIRE COUNCIL – NEW UTILITY CORPORATE MEMBERS

Jaime Guedes, the Technical Services Manager, identified that taking up Utility Corporate Membership with WIOA would provide a number of great benefits to both the council and employees. Being part of the WIOA community and attending networking days, plant tours and practical skill development workshops is a really hands on way for our operators to learn. Accessing other WIOA services, events and technical resources like the practical guides, WaterWorks Journal and the regular Operator newsletters is also important for the continued development of our operational staff. Giving operators access to this practical information and industry updates, enables them to keep up with latest developments and ensures they are well equipped to continue to provide exemplary results in the provision of water and waste services to our community.

Along with a few other organisations, WIOA very actively advocates for and represents operators on a variety of state and federal issues. With the introduction of a national certification scheme on the horizon it is imperative that our operators have access to current information. As a recognised certifying body for the Australian water industry operator certification scheme, we look forward to working with WIOA to ensure our operators meet all the requirements.

CEO Alan Neilan says council are committed to quality of service to the community and ongoing personal development of employees plus training of new employees. Being a WIOA member gives trainees and experienced employees access to opportunities not normally found in remote areas.



The Wujal Wujal operators

UPGRADE TO SLUDGE SYSTEM AND NEW SLUDGE THICKENER

Mt Kynoch WTP - Toowoomba Regional Council

In early 2012 works began on the new sludge thickener and sludge system. The upgrade consisted of the existing Recovery Tank being transformed into a wash water tank with two new submersible mixers installed. Existing supernatant pumps were replaced with new feed pumps fitted with VSD's for increased operational control. The new system allows flexibility with the plants filter backwash runtimes compared with the existing configuration that required the back wash water to settle prior to decanting the supernatant. Filter backwash water is now pumped via a DN 200mm HDPE pipe line through a static mixer coupled with an injection spear dosing polymer (LT 25) prior to entering the new DN 11.0m clarifier.

Thickened sludge from the clarifier is discharged into a sludge balance tank were it is released at 3L/s into the gravity sewer. Supernatant from the clarifier is returned to the existing supernatant pump stations. Supernatant is pumped from the supernatant pump stations into the raw water main supplying the WTP. The rate of return from the supernatant pumps is controlled via VSD ensuring sufficient return rates compared to the incoming flow rate to the WTP. The supernatant is analysed by an online turbidity meter for constant monitoring of supernatant return water.

The system is controlled and monitored through SCADA using Citect. Different modes of operation can be selected to suit plant requirements, such as flow/speed and percentage set points, volume control, timer control for the different aspects of the sludge system. The new system provides more control and better operation of filters when backwashing through high turbidity and colour events. Higher quality supernatant is now returned to the WTP, all sludge produced from the plant is processed at the Wetalla Reclamation Facility instead of being dried and excavated from lagoons and trucked to landfill

Contributed by **Martin Schelberg**, Senior Water Supply Operator, Toowoomba Regional Council



Old sludge lagoon drying for excavation





2014 NSW OPERATOR OF THE YEAR - TODD PATTISON



Wyong Shire Council staff member Todd Pattison was awarded the prestigious NSW Operator of the Year award at the WIOA NSW annual conference. The annual award is given to reward excellent performance, initiative and all round attention to detail by an operator of a water or wastewater treatment facility.

Todd leads a team at the Mardi Water Treatment Plant (WTP), ensuring that all drinking water treated meets Council and the national standards at all times. Todd's knowledge of process and of the facilities ensured Todd played a pivotal role in operations at Mardi Dam during the recent upgrade works.

Todd is a valuable employee to Wyong Council and in particular the water treatment process. Todd motivates his small team through his attitude, work ethics and communication style. His peers hold him in high esteem. Todd ensures staff are appropriately trained by identifying training needs and providing "On the Job" training or where required co-ordinating provision of external trainers.

Todd monitors and reviews staff performance and provides technical assistance/advice to operators and external authorities. Todd played a major role in the augmentation and subsequent process operational issues of Mardi WTP. Todd thrived on these challenges and was a key figure in providing solutions. With such a complex and high-tech installation, Todd not only has a sound knowledge of water treatment but is also prepared to keep up to date with improved systems and procedures and has been and continues to be a key player in the effective operation of Mardi WTP.

Todd also plays a pivotal role in working with Gosford City Council as the integration of the water transfer systems continues since the arrival of the Mardi to Mangrove pipeline to assist drought proofing and the inter-council water transfers for the Central Coast. Todd champions the Council core values of excellence, pride and integrity and is a role model to enhance team culture and performance.

One of Todd's achievements was his implementation of operational improvements to enhance production processes which enable treatment of up to 160 ML per day. Todd and his team also respond to breakdown alarms after hours using remote access to acknowledge and rectify issues remotely.

Todd gives his time and knowledge to the community by conducting water information tours at the Mardi facility. He is also a committed family man involved with coaching junior cricket where his son plays at a high representative level.

In addition to being awarded a trophy, Todd travelled to New Zealand to attend the 2014 Water Industry Operators Association New Zealand Conference and participated in a study tour of various water and wastewater treatment plants. The judges are always very impressed with the high quality operators in regional NSW and the Water Directorate would like to congratulate the other nominees: Allan Black from Coffs Harbour City Council, Eddie Clarke from Glen Innes Severn Council and Les Green from Walgett Shire Council.



Todd Pattison (R) with NSW Water Directorate CEO Gary Mitchell



NSW OOTY -Todd Pattison at work in the lab

THE LIGHTER SIDE

More entries for the Plumber of the Year?



NATIONAL WATER ACCOUNT 2013

As competition for water resources intensifies, it is more important than ever to account for how water is managed across Australia in a transparent and rigorous way.

The Bureau of Meteorology produces a National Water Account that informs policy, planning and decision-making by governments and industry by providing detailed insight into the management of Australia's water resources at a national and regional level. The National Water Account is Australia's most extensive water information report. It reports on water stores, flows, rights and use for the previous financial year for nine nationally significant water use regions. It pulls together the best available data, standardises this information to ensure that it is nationally consistent and highlights data gaps.

The reporting regions included in the Account are home to more than 70 per cent of Australia's population and are where more than two-thirds of Australia's total annual water consumption occurs.

Comprehensive water resources management reports for Adelaide, Melbourne and Sydney were released in April, and join the Canberra, Daly, Ord and Perth reports which were released in February.

Key findings from the 2013 Account

Adelaide

- Experienced below average rainfall and decreased storage inflow
- Desalinated water supply increased almost tenfold in 2012-13, compared to 2011-12, while the volume of imported River Murray water by almost 45 per cent

Melbourne

- Experienced below average rainfall and decreased storage inflow
- Surface water diversion for urban supply increased by around 9 per cent in 2012-13
- Recycled water was a minor supply source and no desalinated water was ordered

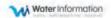
Sydney

- Experienced average rainfall conditions in 2012-13, following above average rainfall in 2011-12. As a result, surface storages were full or close to full capacity
- Urban water supply increased by around 8 per cent

Surface water diversion for urban supply increased by around 20 per cent and no desalinated water was supplied.







THE LIGHTER SIDE

Two good reasons to never hide in a water pipe



You might bump into 87 snakes



Or a 5.5m long crocodile

BIRDS EYE VIEW - Facilities Members Operate

Loganholme Wastewater Treatment Plant, Queensland



WIOA tour of Logan Wastewater Facilities

As a precursor to the 38th WIOA Queensland Water Operations Conference and Exhibition, Logan City Coun exhibitors the opportunity to undertake a tour of the Loganholme and Beenleigh Wastewater Treatment Plant Tuesday 3 June 2014, and buses will leave from the Logan Metro Sports Centre at 2.30pm. Book your place



cil is offering delegates and ts. The tour will be held on e with sherryn@wioa.org.au





THE BEGA VALLEY IS TOPS IN TASTE



It's official, the Bega Valley Shire Council has the best tasting water in New South Wales!

The result comes from a Bega Valley Shire Council water sample being announced the winner of the 2014 Orica Water Taste Test held at the WIOA NSW Conference in Orange.

Four finalists were chosen using a "Masterchef" style tasting on Tuesday evening by delegates at the welcome reception. The four finalists were the Bega Valley Shire Council, Nambucca Shire Council, Orange City Council and Wingecarribee Shire Council.

In accepting the award, water & sewer operations supervisor, Keith Hyatt, said it was great for such a small community to achieve an award as big as this. The water and sewerage team at the Bega Valley have an enormous task keeping the system flowing through rain, hail or shine and like all operators work hard to keep their water at the highest quality.

The sample was taken from Water & Sewer Operations Supervisor, Keith Hyatt's bathroom sink in Kalaru, inland from Tathra on the Southern NSW coast. Keith explained during the grand final tastings, that the team wanted to show that the water you get from your household tap is worthy of this award.

The Bega Valley Shire Council now has bragging rights for the next 12 months as having the best tasting tap water in NSW and will also send a team up north to represent NSW and compete against the winner from Queensland's Best of the Best Taste Test from Cooktown, in a Water of Origin Water Taste Test in early June.

The Water Taste Tests are about raising awareness of the quality of all Australian state's drinking water. WIOA sees them as a fun and exciting way to raise awareness of the quality of drinking water and recognise the efforts of local water service providers and their operators in delivering safe, valuable water services to their communities. With the support of Orica, WIOA will be staging taste tests later this year in Tasmanian and also again a Test in Victoria will be conducted at our Victorian Conference in Bendigo in September.





2014 NSW Orica Water Taste Test Judges (L-R) Herman D'Souza from Orica, Jacqui Lassau from Thermo Fisher Scientific, Hannah Busch from Aqualift Project Delivery and WIOA President Russell Mack



The team from Bega Valley celebrate their win



Keith Hyatt from Bega Valley Shire Council with Oricas Herman D'Souza (R)

Orica NSW Water Taste Test – Winners

2014 Bega Valley Shire Council

2013 MidCoast Water

WIOA QUEENSLAND CHARITY BOWLS DAY

The WIOA QLD Advisory committee held a memorable charity event on the Sunshine Coast in March 2014. Members mustered up at the Yandina Lawn Bowls Club for a mixed day of sunshine and rain with a splash of tough competition on the green.

All up 39 players registered to play, a welcome increase of 12 players compared to 2013. The players list comprised a composite group who had travelled from Brisbane, Toowoomba and Esk as well as the local contingent from the Sunshine Coast. Teams of 3 players were formed for a series of round robin matches that required all teams to play each other over 2 ends.

After an intense coaching clinic from the club president, all players took their positions for the first bowl of the morning. From this early point the writing was on the wall that some people were there to win, leading to some fierce competition. The president was kept busy with his special tape measure, however he did refuse to measure any bowls more than 3 meters away from the jack. The morning progressed smoothly disregarding a few wayward bowls that diagonally crossed the green. Things were starting to heat up as a sudden sun shower passed overhead catching all off guard and looking for cover before the lunch break.

After lunch all focus was on the home run into the finals. Teams from Royce Water Technologies and Automation Group bowled their way through to the final round, both teams thirsty for victory and wanting to take the "Tradies Cup" home for the trophy room. After near faultless ends both teams could sense victory, it all came down to the last bowl of the day. Marcus Boyd took his place on the mat and released a perfect bowl to snatch victory and claim the Tradies Cup for the Automation Group team ably led by Dave Cundell and including Dave McCartney.

The day provided plenty of opportunity to meet, greet and network amongst water industry professionals. Thanks to the Yandina Bowls Club for their hospitality and the great BBQ lunch they provided. The day concluded with raffles in the clubhouse, increasing the amount of cash available to be donated to charity. There were plenty of prizes won and all attendees went home happy and satisfied.

Everyone had a great day and enjoyed the atmosphere of a relaxing day bowling and networking. Thanks to everyone who came along to support the WIOA Queensland Advisory Committee and to participating in what turned out to be a great social networking event. I'm sure the Charity Day will grow as the year's progress.

A special thanks to the companies who supported the day by sponsoring and donating prizes for the event: Automation Group, AIM Water, Xylem, McBerns, Rust Bullet, Strongform Industrial, Royce Water Technologies, KSB and Thermo Fischer Scientific. Over \$1200 was raised on the day, and this money will be donated to charity at the Queensland conference and exhibition in Logan in June 2014.



QLD Bowls Day Tradies Cup Winners - Automation Group - Dave McCartney, Marcus Boyd and Dave Cundell recieve the cup from WIOA's Craig Mathisen



QLD Bowls Day particpants in Yandina



Royce Water Technologies v Automation Group made for a thrilling (well sort of) Grand Final



Marcus Boyd getting down and dirty with his winning bowl

WIOA A G M

WIOA held its Annual General Meeting and Weekend Seminar at the Airport Hotel and Convention Centre, Attwood, Melbourne on the 1st and 2nd March 2014. There was a solid turnout at the weekend although still a few spare seats not filled so make sure you get in and come along next year. The weekend event went without a hitch and in line with previous years, was allocated a theme, this year's being "Top Gun" due to the proximity to the Melbourne airport.



WES attendees

In traditional WIOA style it was both informative and fun, with attendees being organised into teams such as Maverick, Goose and Merlin, with the chance to win points throughout the day through interactive activities put together to break the day up between presentations and other activities.

It started at 12 noon on Saturday, with a nice lunch and opportunity to catch up with old friends and colleagues as well as meet some new ones. Then it was into the WIOA Annual General Meeting, where details of a strong yet tight financial year were presented. During the AGM the election of office bearers and general committee members were undertaken. Russell Mack (President), Ryan McGowan (Vice President) and George Wall (Secretary/Treasurer) all retained their positions for another year. The General Committee elections went to vote, as there were more nominees than positions available.



President
Russell
addressing
members
during
the AGM

John Allen was the unlucky one to miss out after 3 terms of service to the committee. Mark Samblebe, Manager Technical Services and Innovation from Aeramix was successful in joining the Committee as a first time member.

Following the AGM it was time for a brief game of name the Airline logo to win some points before the informative technical presentations began.

Margarita Carroll presented information on updated sludge blanket monitoring technology from KRHONE detailing

WEEKEND SEMINAR & AGM

how clarifier performance can be optimised or failures in performance be identified early to avoid non compliances. The technology provides an early warning signal to prompt response and corrective action prior to an event such as changing raw water quality leading to plant failure. The technology is suitable for both water and wastewater clarifier applications and could be of immense value in water systems where raw water quality is variable or wastewater systems subject to high infiltration during wet weather events.

After some afternoon tea, more points were awarded to teams with the annual decipher the acronym challenge before Garry Johnson from Cyndan chemicals enlightened the audience with some pretty snazzy videos and demonstrations of some high tech chemicals produced with "nano-technology" that could have applications in the industry. The demonstrations were eye catching and borderline Magic show stuff where advanced coatings were applied that prevented agents such as spray paint, mud, and even polymers from sticking or becoming slippery. Some definite applications to improve the safety of flooring around polymer applications were observed.



Gary Johnson from Cyndan chemicals demonstrates their graffiti removal product

Thank heavens their product worked

George then summarised the Associations year progressing the state and national operator competency and assessment standards offering insight into the process so far and the challenges yet to be overcome in order to establish a sound state and federal alignment of requirements. Kathy Northcott from Veolia also detailed how Veolia Water have approached the certification scheme, and the challenges of having a Victorian and Federal competency requirements presents for a company with a national workforce. Challenges in that the different requirements the two systems propose may in future, prevent a certified operator in Victoria from operating a plant in another state until additional qualifications are granted and vice versa.

Then it was into the operator forum, which spent much of its time in healthy discussion on the certification and operator competency requirements, including the lack of requirements for wastewater treatment operators under the current framework. Another point of concern for the operator competency and certification scheme is its voluntary nature, presenting doubt for registered training organisations who need to gear up to improve knowledge and capacity to deliver training on new treatment technologies such as RO, MF &UF, as well as challenges in establishing a single certification body - while utilities themselves had doubts as to the traction the scheme would retain into the future if it remained voluntary.



A short break was taken after the forum before dinner and the evening activities began. There was no entertainment this year so it was decided by WIOA COO Craig that teams could have the opportunity to win bonus points if they could do an act between the main and desert. Several teams passed up on the opportunity opting to take the guaranteed 2 points over embarrassing themselves for the chance to win big.

Those who did perform did some amazing things, Jim Martin dusted off the harmonica dazzling the crowd with an almost recognisable tune while the rest of the team showed off how poorly they could juggle. Bernd brought the didgeridoo along and got his team blowing on some vacuum cleaner pipes borrowed from the cleaners cupboard while John Days team got the crowd involved when he pulled his team mates in blind to perform a fun song about a chap who works in a button factory. The judges' scores ranged from high to low while at times the crowd was wishing for Red Simons to bang the gong, it was a fun night had by all. Either way there were plenty of smiles and laughs round the room.



Chairman Jim Martin giving it his all

John Day leads team Hollywood in the "push the button" song

After dinner the room opened up, circles got larger as the group reminisced on previous events, tours and conferences where the funny side of things was the main point of discussion and the laughs continued. After a few more stories and many more laughs, the days activities finished up when the lights dimmed and the bar closed signalling it was time for us to retire for the day.

After settling the stomach from the previous nights activities over some bacon and eggs for breakfast, the group had a presentation from Clint and Ian from Yarra Valley Water before a very informative site visit to the Kalkallo Stormwater Treatment Plant.



lan Donald (L) and Clint Vandepeer at the Kalkallo Storm Water Treatment Plant tour

Contributed by Mark Samblebe from Aeramix

TEN TIPS TO IMPROVE YOUR PHONE'S BATTERY LIFE...

- **10.** Turn off WiFi Keeping WiFi on when you're outside of WiFi range, will cause your battery to drain faster. *On an iPhone, go to Settings > WiFi and turn WiFi off.*
- **9. Turn off location services** Lots of apps want to know our location to provide a better user experience. However having that little blue dot constantly knowing where we are takes a lot of data and battery power. On an iPhone, go to Settings > Privacy and turn off location services, or select which apps you do and don't want to use location services.
- 8. Turn down brightness / Turn on Auto-brightness A super crisp and bright screen is great and all, but having a phone with battery life is better. On an iPhone, go to Settings > Wallpaper & Brightness and lower the brightness level OR turn on Auto-brightness
- **7. Turn off Bluetooth** Same deal as WiFi. Kill it when not in use. On an iPhone, go to Settings > Bluetooth and turn Bluetooth off.
- **6. Upgrade to the latest firmware release** There's some very smart people working at the likes of Apple, Samsung, HTC, etc, and they're constantly working out improvements to conserve your phone's battery. If you haven't updated your phone's operating system for a while, make it a priority.
- **5. Turn off Background App Refresh** If you've got Background App Refresh on, your apps will constantly refresh their content. To Apple own admission: "turning off apps may help preserve battery life". On an iPhone, go to Settings > General > Background App Refresh and turn off Background App Refresh, or select which apps to turn off.
- **4. Turn off Dynamic Backgrounds** Do you have a funky little moving bubble feature as your screen's desktop or lock screen? Cute, but bad idea. Turn it off to same juice. *On an iPhone, go to Settings > Wallpaper & Brightness > Choose Wallpaper and select a still image.*
- **3. Don't auto update Apps** It's now default for phones to automatically downloaded new versions of Apps released by the App developer. Cool, but not if you're in the red zone. On an iPhone, go to Settings > iTunes & App Store and turn off Updates.
- 2. Set auto lock to the shortest possible time This is a simple one, but highly effective. The more time you phone is on when you're not using it, the shorter the battery life will be, so set the lock screen to activate as quickly as possible. On an iPhone, go to Settings > General > Auto-lock and set to 1 minute.
- ...and finally, the biggest culprit of them all!
- 1. TURN OFF PUSH FOR EMAIL & SET FETCH TO MANUALLY
- If your phone is set to 'Push' mail, it is constantly asking the mail server in the cloud if there's any changes, ie new emails. This actually happens every second, smashing the battery level. Madness! It's nice to be alerted as soon as you receive a new email we agree but that's nothing compared to the pain of having a phone with a dead battery. On an iPhone, go to Settings > Mail, Contacts & Calendars > Fetch New Data and turn Push off. For maximum battery savings, set Fetch to manually.

If you're on an exchange server, doing this one thing will see your battery life will soar! However, if you've set Fetch to Manually, you'll need to go into your mail app before it will retrieve new emails. A small price to pay, in our humble opinion.

Information obtained from the Chargebar website - www.chargebar.com.au

TASMANIAN NEWS

NEW INFRASTRUCTURE REPLACES OLD STINKER

The Helen Street Pump Station is an integral part of the overall sewerage system in Ulverstone, on the north west coast. It receives domestic sewage which is pumped to the Knights Road Treatment Plant. It also receives pre-treated sewage from the nearby Simplot vegetable processing factory, which is then pumped out to sea with the treated effluent.

Max Rootes, Project Supervisor, explains "The ageing Helen Street Pump Station suffered a major failure some two years ago and investigations revealed that a significant upgrade would be required. Pipes had corroded extensively and were paper thin in some instances."

Maintenance work had helped to keep the pump station operating however this work was only a short term measure and a more permanent solution was required. "Residents close by have endured strong sewage odours for years and this was an important consideration for improvements to the plant."

In July, 2012, a decision was made to replace the pumps, maintenance valves and fittings, install a new generator and an odour control system at a cost of \$1.65M.

"The valves were moved from the wet well to a new valve pit outside the pump station to prevent a reoccurrence of the corrosion problem. High density polyethylene pipe was used to replace old steel, asbestos and concrete pipes. The installation of the odour control system includes a new ventilation system for the two wet wells for odour extraction and fresh air supply for confined space entry."

The project has been constructed in two stages. Pumps were replaced between August and December 2012 and the odour control unit and generator installed between January and July this year.

Max had a few late nights during the installation of the valves and pipes as this work had to be done of an evening when sewage flows were low. "We had to wait for Simplot to go off line and this helped to significantly reduce flows as well." The work was carried out by a combination of contractors and TasWater staff over three nights starting at 10.00 pm and concluding at 6.00 am.

New technology has been utilised to help combat the odour problem. The odour control unit consists of a two stage filter process — namely a bio control tank to capture the majority of the odour and a secondary activated carbon tank for any remaining odour. The odour will be pumped via an air intake from the pump well."

The bio control unit utilises a biological process to remove odours and was identified as an environmentally and economically sustainable solution for this plant. The same technology has also been utilised at the North Caroline Street Pump Station where odours were causing concerns to local residents.

Commissioning of the odour control unit will take approximately four week, where the establishment of the bacteria into the bio control tank will occur and ensure they are "working" effectively. Local residents have been kept informed throughout the project.

Contributed by **Darren Lord** from TasWater





Helen Street Odour Control Station



LITTLE WINS BIG

PASS - Problem Accepted Solution Supplied

Congratulations to Lester Little from TasWater who was announced as the winner of the 2014 PASS Award at the NSW Conference in Orange.

This is the 4th year the PASS award has been presented which creates an opportunity for water industry operational staff to share their in-the-field innovations and/or fixes to problems so that others in the water industry can benefit.

Lester came up with an innovative solution to a major pump station wet well build-up of scum, fat and other foreign material. For his efforts he joined the WIOA team on their annual operational tour of New Zealand, which included attendance at the New Zealand WIOG operations conference. The award is made available through the kind sponsorship of Aqualift Project Delivery and WIOA celebrates the sharing of good ideas by publishing all of the 2014 entries for this Award.



TasWater's Lester Little receives his award from Jillian Busch from Aqualift Project Delivery

ADVERTISING WITH WIOA WORKS

Over the past 5 years or so I have represented Barwon Water at the Geelong Friends of Viqueque group. The city/region of Viqueque is in East Timor, refer map.

In this time it has been my task to provide advice in water and sanitation related issues and possible contacts within the water industry. Although there have been other members of the group who have visited the region of Viqueque the information gathered in relation to the water and sanitation needs required input from a technical view point.

It was highlighted that the assessment needed to be onsite so that the possible solutions related to water and sanitation could be fully explored and understood. In addition to the technical requirements the person undertaking the assessment needs to have some flexibility in the time they went and also understand the potential culture issues of working overseas.

The task of finding a person or persons who could undertake the assessment was delegated to me. In addition to the suggested contacts within the community groups represented on the committee, e.g. Rotary, Catholic schools, Geelong health groups, it was my opinion that the experience the group was seeking could be obtained using the wider network of WIOA.

Following the drafting and circulating of an expression of interest advert, the main responses have been from the WIOA web site. At the end of March, of the five expression of interest received, three enthusiastic expressions of interest have come via the WIOA website ad. Of these, two follow up interviews/discussions have been arranged to fully understand the nature of the task & the suitability and experience of applicants plus to answer/clarify the questions the applicants have.

In conclusion, WIOA offers many services to the membership both directly and as shown above, has the resources to successfully promote an opportunity to provide assistance in a developing nation.

Contributed by **Graham Thomson**, Barwon Water



Advertising with WIOA - East Timor

THE LIGHTER SIDE

THE WAYSIDE CHAPEL

An English Lady, making plans for an inexpensive visit to Switzerland, wrote to a country Inn for a room reservation. She ended the letter saying she preferred accommodation as close as possible to a WC.

You Anglophiles will recognize WC as a water closet or toilet. The Swiss innkeeper was not that well acquainted with the English, so he took the letter to his friend the parish priest and asked "What is a WC?"

The priest mulled this over for a time and then the dawn broke. "I've got it, he said; of course she means Wayside Chapel". Very pleased to have his problem solved, the Innkeeper hastened to write to the English lady.

Dear Madam:

It is with great pleasure that I am able to inform you that we have a lovely room reserved for your visit and that there, indeed, is a WC. It is located only two miles from the Inn, in a beautiful grove of pine trees which give a feeling of serenity to the visitor. We will be most pleased to arrange transportation for you during your stay with us.

It may surprise you to know that our WC holds over two hundred persons per sitting. It is a good idea to go as early as possible in order to get a good seat, as sometimes standing room only is available, and is especially hard on some of the older ladies.

On Sundays, a good number of people take picnic lunches and make a day of it. Others take a bus or horse carriage and usually arrive only just in time. I would recommend Madam arrange to go on Thursday evenings when there is organ accompaniment. Although the building dates back to the 12th Century, the acoustics are excellent and even the most delicate sounds may be heard in the halls.

We are very proud of our unusual bell, donated by a wealthy visitor, which rings every time someone makes an offering.

Unfortunately my wife has a rather delicate condition so she has not been able to attend regularly. Naturally it pains her very much not to be able to go more often.

In conclusion, we hope your visit with us will be most happy, so please let me know if you wish a seat reserved for you, for the season at the WC; there is a service charge but it will ensure you an upholstered seat. We suggest you bring your camera as the evening candle lighting ceremony in the WC is very colourful and it's a beautiful sight to see the light playing on the fountains.

Some come with cheer – some with charity – but all leave satisfied.

Contributed by **Bernd Vetter** from Evoqua Water Technologies



CORPORATE MEMBER NEWS

CENTENNIAL OF THE WALLACE AND TIERNAN GAS CHLORINATOR

On February 22, 1913, on a tributary to the Rockaway River near Dover, New Jersey the first chlorine gas chlorinator was installed. The chlorinator was invented by two young engineers, Charles Wallace and Martin Tiernan. Their device has been credited with the elimination of water-borne diseases. all too common in the early 1900's, and for saving countless lives. LIFE magazine in 1997 declared water chlorination and filtration "probably the most significant public health advance of the millennium".



Charles Wallace



Martin Tiernan



The Chlorinator known as Old Number

Contributed by **Bernd Vetter**, Evoqua Water Technologies

EMERSON OPENS NEW MANUFACTURING AND REPAIR FACILITY

Emerson Process Management new manufacturing and service facility in Melbourne was officially opened by Emerson Chairman and CEO David Farr on March 4

This Emerson Quick Ship and Repair Centre provides the local market with more than 6.000 product and service solutions for Emerson's Rosemount pressure, temperature and DP level instrumentation range, including the capability to manufacture and repair remote seals. New instruments can be manufactured to match specific site applications with either 48-hour express or five-day priority dispatch. The facility also has advanced repair and service capabilities to refurbish and reinstate devices to original performance and specifications.

"Our continued commitment to help customers operate plants at their full potential -combined with growing market demands -- has fuelled the need for local product manufacturing," said Karl Wigginton, managing director for Emerson Process Management Australia and New Zealand."

The facility has been specifically designed for local industry requirements and unique product and service solutions. The new centre is ISO 9001 quality endorsed and IECex hazardous area accredited. Testing, calibration equipment and services match the highest device specifications in the world.



CEO David Farr and friends



Emersons new manufacturing and service facility in Melbourne

INSTRUMENTATION TIPS

4-20mA Loop Power Made Simple

Many instrument sensors or transmitters found at plants have "loop powered" 4-20mA outputs. 4-20mA is a standard electrical signal for transmitting the particular measurement being monitored where 4mA represents 0% of measurement and 20mA represents 100% of measurement.

WHY 4mA and not 0mA?

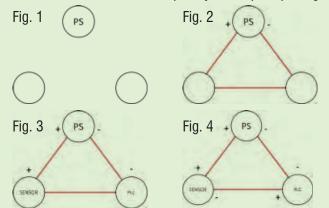
By having an elevated 0% mark you can identify a problem with power or other connection to a sensor or transmitter. With no power or connection the output will be below 4mA (generally zero) and identify a problem with the measurement.

WHAT IS LOOP POWERED?

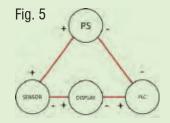
Loop powered sensors and transmitters are powered through a loop (see Fig. 2). These devices will generally have only two connection points; a positive and a negative. Alternatively a sensor or transmitter may be externally powered by 240Vac or other supply. These devices will generally have four connection points; a positive and a negative for the 4-20mA signal and an external power source connection.

CONNECTING THE 4-20MA LOOP?

Using an external power supply to power your loop use the following instructions to connect your loop powered sensor. Draw three circles in a triangle configuration as per Fig. 1 In the top circle write PS to identify your power supply. 4-20mA signals are DC supplied; so put a + and - signal on either side of your circle marked PS. Join the circles with a line (shown in red) as per Fig. 2. RULE #1 The positive of the power supply goes to the positive of the adjoining input & the negative of the power supply goes to the negative of the adjoining input as per Fig. 3. In our example we have a sensor "loop powered" and our signal input to a PLC. RULE#2 Each of our devices will have two terminal connections — a positive and negative. Having already identified the polarity on one side of the device you can put in the polarity of the other side of the device to complete your loop as per Fig. 4



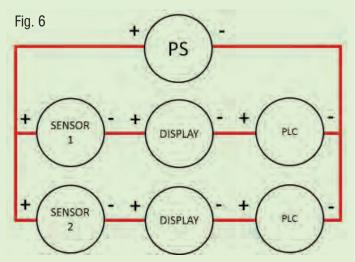
You may need to add another device; for example a local digital display. The can be easily fit into the loop as per Fig. 5 below



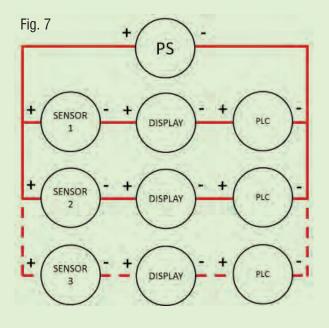
THE GOLDEN RULE: The positive of the power supply goes to the positive of the adjoining input, the negative of the power supply goes to the negative of the adjoining input & connection between each device in the loop EXCLUDING the power supply is positive to negative.

MULTIPLE LOOPS

Each sensor or loop has a maximum capacity of 20mA. This is our 100% mark. A power supply will be rated to a certain current capacity — Example: 24Vdc @ 200mA. With this example theoretically we could power up to 10 loop powered devices 10 X 20mA = 200mA. It is good practice to allow some extra capacity so in this instance fit only a maximum of 8 loop powered sensors. For more sensors use a power supply with a higher current rating. Fig. 6 below shows the wiring configuration for a 2 loop system and connections. Note: the same principals of the GOLDEN RULE apply!



If your power supply has enough capacity you can add other loop powered devices without the need for additional power supply as shown in Fig. 7 below



Contributed by Arthur Kokolekos from Royce Water Technologies

2014 DATES TO REMEMBER

4 & 5 June 39th Queensland Water Operations Conference

& Exhibition, Logan, QLD

24 June FNQ Water Interest Day and Social Bowls

afternoon – Cairns, QLD

8 July Water Quality Awareness & Distribution

System Management Seminar - Wodonga,

VIC

20 July Kwatye Prize applications close

3 & 4 September 77th Victorian Water Operations Conference &

Exhibition - Bendigo, VIC

NEW MEMBERS

Welcome to the following people and companies who have recently joined our Association as a Member or Corporate Supporter.

New **Individual Members** include:

Matt Beattie, Carsten Berberich, Douglas Burt, Phil Cairns, Anand Raj Dorai Raj, Geoffrey Higginbottom, Cameron Kervin, Matthew Nicholas, Ashley Dedini, Barry Dullard, Leif Ericson, Steven Hamann, Marcus Henry, Brendon Hinck, Matthew Holland, Jordan Hubber, Shane Hutchins, Vijay Ignatius Jeyam, Michelle Joy, Vanishree Naidoo, Andrew Nieto, Russell Phillips, Bervin Sunnassy, Steven Woodall, Jaime Guedes, Ray Sycamore, Rodney Denman, Johnathan Bassani, Vince Foley, Peter Brown, Kanishka Banerjee, Tony Cope, Tony Grcic, Pat Nolan, James Portlock, Tanva Casev, Fred Raines, David Sam, Mark Bradshaw, Laine Banyer, Luke Whitten, Jason Williams, Dean West, Scott Stevens, Wayne Eccleston, Paul Ricketts, Bjorn Penon, Mal Stewart, Kathryn Smith, Julie-Ann Smith, Shelley-Ann Cottam, Scott Lawlor, Matthew Thorpe, Brenton Riley, Cody Sloan, Daniel Judd, Rod Harland, Chris Smith, Nathan Rogers, Michael Davis, Dave Colley, Allan Perry, Dean Greenwell, Ron Bosson, Gary Pearce, Keith Hyatt, Benjamin Farrer, Graham Rollin, Todd Pattison, Stephen Mauger, Josh Nagle, Melanie Giacomin, Mano Manoharan, Greg Prest, Nicole Vonarx, Abe Sweaney, Tim Hall, Brett Wurth, Guy Rolfe, Peter Botham, Mark Watson, Andrew Telfer, David Heape, Justin Renehan, Ross Pillar & Natasha Smith.

New **Utility Corporate Members** include:

Wujual Wujal Council, Trility, Water Infrastructure Group, Lachlan Shire Council & Young Shire Council.

New **Corporate Members** include:

Cathic, Electronic Power Solutions, Mech-Elec Automation, Portacrete Transportable Buildings, Chankar Environmental, Evoqua Water Technologies, Denso Australia, Monkey Media, Aqualab Scientific, Eaton, Gutermann, deMaher, Biogill Operations, The Shotton Group, Grate Engineering, Pelican Products & Watertec Engineering.

2014 COMMITTEE ELECTED

The 2014 WIOA Committee was elected at the AGM held in Attwood in conjunction with the Weekend Seminar on 1 March. Russell Mack from Gippsland Water was elected as President for a fourth term (2001, 2002 and 2013). WIOA is truly fortunate to have such dedicated members who are prepared to put their hand up for leadership positions as Russ has done.

Ryan McGowan from Goulburn Valley Water was re-elected as Vice President.

Outgoing Committee Member John Allen was thanked for his work and commitment to WIOA having been a Committee representative since 2010. John has assisted WIOA to have a strong presence in Queensland, and has been a regular helper at our events and conferences in the Sunshine State.

Contact details and a listing of the new committee can be found below.

Office Bearers & Committee

President Russell Mack

Ph (03) 5177 4659 Mob 0427 331 586 **Vice President Ryan McGowan**Ph (03) 58 320 438
Mob 0400 055 508

Executive Officer George WallPh (03) 5821 6744
Mob 0407 846 001

Committee

Anthony Evans

Chairman Victorian Advisory Committee Ph (03) 55 647 608 Mob 0419 103 885

Darren Lord

Chairman Tasmanian Advisory Committee Mob 0427 545 130

Adrian Rijnbeek

Ph (03) 9540 5888 Mob 0419 698 367

Stephen Wilson Ph (03) 5244 0800

Marcus Boyd

Chairman Queensland Advisory Committee Ph (07) 4688 6319 Mob 0417 759 487

Lindsay Walsh

Chairman NSW Advisory Committee Mob 0427 105 421

John Day

Ph (02) 6022 0596 Mob 0409 959 841

Mark SamblebeMob 0400 126 141

NEXT EDITION

Article Contribution Deadline for the next edition is 9 July 2014

All correspondence should be addressed to: The Editor PO Box 6012, SHEPPARTON, VIC. 3632

or email: Craig@wioa.org.au Website: www.wioa.org.au

Nisclaimer **.**

The WIOA assumes no responsibility for opinions or statements of facts expressed by contributors or advertisers. All material in 'Operator' is copyright and should not be reproduced wholly or in part without the written permission of the Editor or Executive Officer



Printed on Recycled Paper.