

OPERATOR

February 2012 Edition



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The KSB Pumps crew doing a demo at the Qld Seminar report on page 3.

The 2011 Vic Conference charity raffle winner Mark Oliver with WIOA EO George Wall. More on page 6.



Some of the participants at the introduction to water quality seminar in Cairns – details page 9.

Newsletter of the WATER INDUSTRY OPERATORS ASSOCIATION OF AUSTRALIA

FROM THE EO'S DESK



WOW – it's nearly the end of February already! The old saying "time flies when you're having fun" is definitely true in WIOA circles.

In the last edition of Operator we welcomed our new Chief Operations Officer, Craig Mathisen. After just seven months in the job, apart from getting his head around exactly what it is we do, Craig has already made a significant mark on our organisation. In particular, he has used his awesome graphic design and marketing skills to update and rebrand many of our publications, documents and promo materials.

I'm sure all members will be impressed by our updated Annual Review released recently. This document has two main purposes, firstly, to report to members on our considerable achievements in 2011. It also advises potential members of the scope and range of WIOA's activities, which in turn may encourage more people to join. We'd hope that all members would be keen to promote WIOA to their peers and an electronic version is available from our website. We have additional hard copies which we can send to any members requiring them. Just let us know in the office and we'll get copies out to you.

It is great to see the WIOA Advisory Committees in both Tasmania and Queensland becoming increasingly active and there are now even more opportunities to network and share knowledge being offered. There is a report on the Qld Pumps seminar and tour of the KSB factory in this edition and there are more events planned in both States in the near future. Make sure you take the opportunity to attend these events when they are held in or near your area.

Demand for our specialised one day seminars has really taken off and we have already committed to running at least eight events around Australia in the first half of this year. The majority of these are as a result of specific requests by water enterprises wanting to update the knowledge of their own staff.

Our Technical Advisor, Peter Mosse has been busy working with many of our Corporate Members to develop two brand new seminars for delivery in Victoria in the first instance. The topics are "Operation and Validation of UV Disinfection Systems for Water, Wastewater and Recycled Water" and "Calibration and Operation of On-Line Turbidity Meters for Reliable Process Monitoring of Drinking Water Quality". The programs and rego forms for these seminars will be available shortly. Depending on their success, we intend to roll them out to the other states in the future.

At fairly short notice in late 2011, we were able to develop an "Introduction to Water Quality" seminar and ran it in Cairns on behalf of the Qld Department of Local Government and Planning. A report on this seminar appears later in this edition. We look forward to working with the DLGP team to expand the content of this

seminar to also cover wastewater issues, and then to deliver it into a number of remote areas in 2012.

Planning is well under way for the 2012 Conferences. The program for the NSW event in Tamworth in March has an excellent mix of platform and poster papers from operators with a wide range of Councils represented. The trade expo is filling fast and it is a "must not miss" event for NSW operators. The Queensland event at Parklands on the Gold Coast is coming together well and the trade expo looks like being a sell out again. We are still chasing papers from operators so please contact the office if you have an idea.

The Victorian conference hits a major milestone this year – 2012 will be the 75th time the event has been staged. The Committee is busily formulating ideas and initiatives to suitably celebrate such an auspicious anniversary. If any members have ideas on how you think we should mark the occasion, we'd be pleased to hear from you. We'll keep members informed about what we will be doing in the coming months.

The project being managed by Government Skills Australia to develop a "National Certification Framework for Potable Water Operators" is continuing, with the second round of consultation meetings to review the draft Framework well under way. Apart from being a project Steering Committee member, WIOA has taken the opportunity to attend as many meetings as possible to hear the views and issues raised in each State. We thank the many WIOA members who have taken the opportunity to participate and contribute in the meetings as well. The final report is due with the National Water Commission by the end of March 2012 and we look forward to the implementation of the Framework in the future.

Another initiative on the training front is the jointly managed project by AWA and the NSW Public Sector ITAB to develop RPL and Training and Assessment Resources for 44 units of competence across Certificate Levels 2, 3 & 4 along with training resources for the 9 recently developed technical units at Certificate IV level. WIOA is an active steering committee member on this project and we firmly believe that developing a Nationally consistent approach to undertaking the RPL process for a range of water industry competencies is long overdue. This project will develop quality RPL resources which when implemented correctly in the workplace, will ensure that RPL assessment processes are industry endorsed, thorough, consistent and fair.

Finally, those members yet to pay their 2012 fees would have received a reminder in the mail recently. Anyone not paid by the end of February will be removed from the database so make sure you pay promptly. Keep in mind that all financial Individual members will go into the bonus draw to win a Canon camera, generously donated by Royce Water Technology. The draw will be made at the NSW conference in Tamworth.

Until next time,

George Wall – WIOA Executive Officer

KSB DAY OUT

We started off the morning with a tour through the workshop. This is a new facility with state of the art, modern equipment, featuring an impressive tank used for pump testing.



Kevin 'Cookie' Cooke KSB Leading Hand and Steve Spiller Queensland Service Manager pulling apart a KRT pump at the workshop.

KSB also had to contend with the 2011 floods going through the factory but they are definitely back on their feet and running at full capacity. KSB has now been operating in Australia for 72 years and they employ a massive staff of 1500.

Kevin did a demonstration for us showcasing the key features of submersible and axial pumps, doing a comprehensive dismantling of 3 pump types. This was a real learning experience and everyone was keen to ask questions of someone with so much knowledge.



Greg James KSB Pumps Business Development Manager discussing the KSB Omega pump with attendees.

A big thank you to Kathy Bourbon (KSB Pumps) who treated us to a delicious morning tea and also provided healthy wraps and refreshments for lunch.

I would also like to thank Greg James and Steve Spilles for allowing us the opportunity to attend the workshop and also to Craig from WIOA for all the organising involved. There were about 20 people in attendance and we all had plenty to talk about and catch up on.

I was very impressed by the professionalism displayed and would encourage all to attend these workshops. Not only are they informative, but they are also a great opportunity to Network with others within the industry.



'Cookie' pulled apart an Omega pump with ease.

Contributed by : **Noel Southern** from McBerns



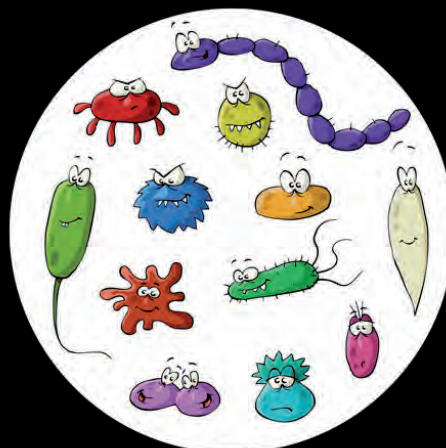
Myth Bacteria is Bad?

Reality

The removal of bad bacteria is the purpose of the wastewater treatment plant, so we can protect the environment.

In the wastewater treatment process we have both good and bad bacteria. The removal of ammonia in wastewater uses good bacteria which converts ammonia to nitrite then to nitrate and then to nitrogen gas which you cannot see or smell. Without these bacteria our waterways would become choked with algae.

Therefore not all bacteria is bad! Myth Busted!



BIRDS EYE VIEW

Facilities Members Operate - Westdale Wastewater Treatment Plant - Tamworth



4. Sludge lagoons: To handle the solid matter that comes from the treated wastewater, two new sludge lagoons have been constructed at the Westdale plant in addition to four existing lagoons. Sludge is stored in the lagoons for six months prior to it being dewatered (or having the water removed) through a mechanical process.

3. Intermittently Decanted Aerated Lagoons (IDALs): These IDALs contain microorganisms to remove organics, suspended material and nitrogen. The Westdale plant has four identical IDALs, each with a 9.1 megalitre capacity.

2. Main inlet works: Raw sewage plus pre-treated industrial wastewater streams are pumped to the inlet chamber at the plant. This flow passes through 5mm screens and any large objects are removed and then go into a grit removal trap.

1. Pre-treatment for industrial wastewater: Because of its higher strength, incoming industrial wastewater is pre-treated before being mixed with incoming domestic wastewater. This industrial wastewater from the Glen Artney passes through a series of mechanical screens to remove large solid particles from wastewater flowing in. Sedimentation tanks and trickling filters are used to remove any biological constituents. There are two Primary Sedimentation Tanks at the Westdale plant. The Westdale plant's two trickling filters act as roughing filters and remove some of the biochemical and chemical oxygen demand from the wastewater. This pre-treated industrial wastewater is then combined with the incoming domestic wastewater at the main inlet works.

The new \$80 million Westdale Wastewater Treatment Plant and Reuse Farm cements Tamworth as a NSW leader in water sustainability.



5. Maturation ponds: Secondary effluent from the IDAL process is then discharged into the three Maturation Ponds at the Westdale. The storage volume in these ponds is designed to give 25 days of retention time for disinfection and helminth control, plus 6.5 days of flow balancing.

WIOA TOUR OF WESTDALE WASTEWATER TREATMENT PLANT

As a precursor to the 6th Annual NSW Water Industry Engineers and Operators Conference and Exhibition, the Tamworth Regional Council is offering the opportunity to undertake a tour of the \$80 million Westdale Wastewater Treatment Plant and Reuse Farm on Tuesday 27 March 2012. The tour will run for approximately 2 hours commencing at 2.30pm and bus transport will be provided, departing from the TRECC at 2.30pm sharp. To reserve your place email sherryn@wioa.org.au - access to the tour is by bus only.

WIOA PROFILE

Introducing the inaugural Chairperson of the WIOA Queensland Advisory Committee Jason Krzciuk. Let's learn a little more about Jason.

Position:
Operations Coordinator .

Employer &

Location: Seqwater, Somerset Region

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

Approximately 20 Years. The main attraction was the broad range of opportunities available within the industry.

What do you enjoy most about your job?

Working within a supportive team and company.

What are the major challenges in your current role? Meeting internal HACCP controls with ageing assets with limited automation.

How long have you been a WIOA member?

Approximately 10 Years

How do you relax? Enjoying a "beer" with friends and family.

Where do you live and what's the best thing about it? Willowbank Qld, Watching the new FA18 Super Hornets and the huge C17 planes flying around.

Quick questions

Age: 40

Nickname: Chook

Family Status: Married with 3 Children

Pets: 1 x dog and 2 x fish

Favourite food: Seafood

Least favourite food: Brussels Sprouts – Yuck!

Favourite TV show: Grand Designs and Rules of Engagement

Worst TV show: Dora the Explorer (I have a young daughter)

Favourite Movie: Shoresbank Redemption

Favourite Musical artist/s: Powder Finger but also enjoy 70's and 80's music

Favourite book: Outdoor Design & Living (Magazine)

Ambition in life: To retire a happy and wealthy man ASAP.

Hobbies: Fishing, motorbike riding, working in the yard.

Best Trait: Helping out friends and family when something needs fixing or repair.

Worst Trait: Not listening to my wife.

Four people to invite to dinner: Casey Stoner, Scott Cam, Paul Worsteling, George Calombaris.



BRADMAN PRINT WINNER



Mark Oliver being presented with the signed Bradman print from WIOA EO George Wall.

The Bradman Print was donated to WIOA by Challenger Valves and was raffled at our 2011 Bendigo conference. All funds raised from the conference raffles goes to charity and Challenger Valves have again committed to providing a great prize for each of our three conferences in 2012.

AGM & WEEKEND SEMINAR 2012

Register Online!

The 2012 weekend seminar & AGM will be held at the Parklake Motel in Shepparton.

For new WIOA members this is your opportunity to meet other members and learn about the latest technologies in a relaxed and friendly atmosphere. The costs for the weekend are absolutely zero, as long as you can get yourself there and home again. From lunch Saturday to lunch Sunday the weekend is on WIOA – just another benefit of being a WIOA member.

Corporate Member presentations will be conducted by Piping and Automation Systems, Latitude Products and Branach.

The forum topic will be the updated Australian Drinking Water Guidelines.

A site tour of Shepparton Water Treatment Plant will also be held on Saturday morning as part of this informative weekend.

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LATITUDE
PRODUCTS

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NEVER RAINED BUT NOW IT POURS

The village of Coles Bay on the Tasmanian east coast, sits at the foot of the granite mountains known as the Hazards and on the edge of the world-renowned Freycinet National Park. The predominantly tourist village sources its water from the Tin Mine Dam via small tributaries which feed into the main Coles Bay supply dam. The Coles Bay Water Treatment Plant (WTP) utilises a tube settling clarifier which can treat up to 1ML/day. The plant averages 0.4 ML/day during non-peak time up to 0.6 ML/day during the peak demand period.

At full capacity, the main dam only held 30 ML. Over the winter of 2006 and the summer of 2006/2007 the water level in the main dam fell dramatically. Coles Bay was frequently low on water, and on restrictions during the summer Christmas/New Year tourist season. Over this period the Freycinet National park alone has up to 2400 visitors per day on the Wine Glass Bay track.

To alleviate the severe water shortage, attempts were made to pipe water from springs and creeks in the Tin Mine area to the main dam but yielded limited results. A tanker was then

deployed to cart water directly from the Apsley River to the Coles Bay WTP. This involved bringing the water 35 km by road, pumping it into a header tank, treating it, then pumping it to the storage reservoir. The tanker held 25,000 litres and made up to 15 trips a day during high demands periods.

In 2009 a contract to upgrade the water supply system by increasing the capacity of both the Tin Mines Dam and the Coles Bay Main Dam was awarded. Also, with the new development of Saffire resort in the area, a third back up Dam was also constructed to cope with any future development. Distance between the dams is 8 km, so the connecting pipework was also upgraded to minimise any water losses.

As a result of the project, the new water storages in the Coles Bay area provide a total of 380ML in storage - Tin Mines Dam 180ML, Coles Bay Supply Dam 120ML and the Saffire Back up Dam 80ML

With heavy rainfall over the 2009/2010 seasons, the dams are at full capacity and well on the way to drought proofing the Coles Bay area. We can now boast we are the “makers of the best drop on the east coast”

Contributed by **Phil Tuck and Mark McConnon**

Coles Bay Dam before



Tin Mines Dam before



Tin Mines Dam after

NSW Operator of the Year

Nominations for the 2012 NSW Operator of the Year sponsored by the Water Directorate, close on 2nd March 2012 with the winner announced at the WIOA NSW conference in Tamworth.

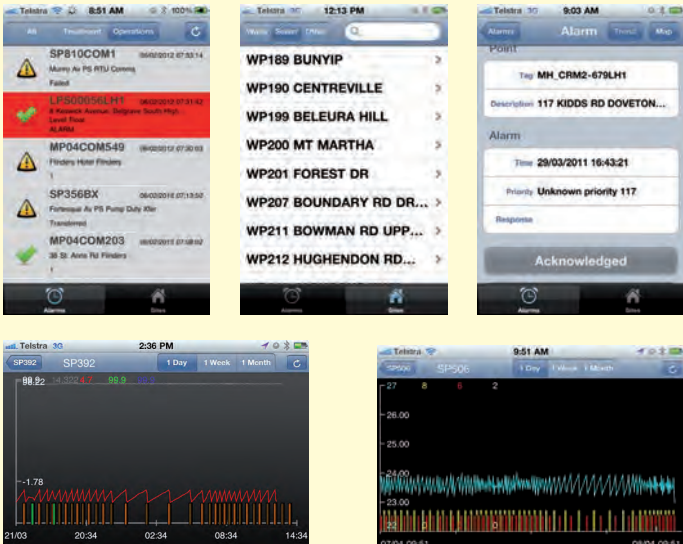
Nomination forms can be downloaded from the WIOA website www.wio.org.au

TECH TALK - Mobile Operator Interfaces

Supervisory Control And Data Acquisition (SCADA) systems have played a large role in managing water and wastewater infrastructure over the last 15-20 years. Traditionally, the Human Machine Interface (HMI) connected to these SCADA systems has been a standard PC. While SCADA systems have improved infrastructure management, there have remained limitations. For the most part SCADA was tied to desk work; an Operator could not compare the SCADA screen to real life operations out in the field or on the plant floor.

With the arrival of smartphone and tablet technology all this is about to change – the world of Mobile Operator Interfaces is now becoming a reality. In fact, some experts believe this is a trend that will expand rapidly over the next few years. Using application streaming technologies (for example, Citrix), corporations are easily able to deploy their current SCADA systems to tablets such as the iPad. This allows Operators to use their existing SCADA system with screens they are familiar with, and access the system far more quickly than if turning on a laptop for instance. These existing screens do not work well on smartphone technologies such as the iPhone or Android based hardware. Therefore many vendors are developing their own applications for these devices, allowing Operators to observe a subset of the SCADA system to view trends or alarms and even acknowledge them. One large SCADA vendor has developed an Android application that interfaces with the commonly used SCADA platform ClearSCADA. Another corporation, South East Water, have developed their own successful application for the iPhone. In addition to viewing alarm and trend information, the application also provides location information via Google Maps to allow users to easily identify where the site is located. There is basic integration into their field works management system for job and asset information, and advanced users also have the ability to reset motor faults. Operators have provided positive feedback on the system.

So keep a look out for this new development as it puts the power of SCADA directly in the Operator's hands!



Contributed by: **Ryan McGowan**, Goulburn Valley Water

PUT YOURSELF IN THE PICTURE



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Plus Accessories



**All paid up WIOA Members are
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WATER OPERATORS SEMINAR – CAIRNS

The Qld Department of Local Government and Planning's 'Capacity Building Group' held a seminar 'Introduction to Water Quality Training Program' in Cairns on 17 November 2011 which was attended by water operators from across the Far North Queensland Region.

Councils represented included Cairns Regional Council (Cairns Water), Cassowary Coast Regional Council, Tablelands Regional Council, Cook Shire Council, Yarrabah Aboriginal Shire Council, Hope Vale Aboriginal Shire Council, Wujal Wujal Aboriginal Shire Council and Torres Strait Island Regional Council.

The event was well supported with 35 attendees from the region participating in the full day seminar presented by George Wall from WIOA. The seminar covered a range of topics including two group activities which were very well received and keenly participated in by operators.

Topics covered:

- Introductions and Safety in the Workplace Refresher
- Water Quality Awareness, Distribution Systems and Public Health
- Walkerton Video and discussion of the issues raised in an Australian context
- Introduction to Australian Drinking Water Guidelines
- Filtration and Disinfection
- Managing the Distribution Network
- Hygienic work practices
- Responsibilities for operating the system

Group Activities:

Exercise 1 - Identify safety and other hazards in the workplace

Exercise 2 - How can pathogens get into the water supply system and what we need to do about it?

At the conclusion of the seminar many of the operators were keen to further discuss the topics covered and the overall opinion expressed was that there should be more of these seminars available to operators in the far north.

Participants were also asked to formally evaluate the seminar and some of these responses are below.

Overall satisfaction - "We should do more of these at all levels of management"

- "George knew his stuff"

"Well presented, interesting and informative, enjoyed lunch"

- "Like to see more of these"

- "Would love to have a training session in Cooktown to share with my fellow workers to push more of the message"

Best parts of the seminar -

- "The way the workshop was run and the feed was excellent"

- "Presentation"

- "Interaction with other operators"

- "All good, the whole seminar"

- "Covering several topics"

- "Professional Speaker"

- "Good organise, Good presenter"

- "Well focused"

- "DVD", "Awareness"

In 2012 the 'Capacity Building Group' in conjunction with WIOA plan to run several seminars and training sessions across the Far North Queensland Region to ensure that operators of water and wastewater operations are given the opportunity to gain new skills and refresh existing knowledge. The Department's aim in capacity building is to strengthen the ability of communities to deliver sustainable water and wastewater services.

The Australian Government is providing \$3.35 million in funding under the Water for the Future initiative for the implementation of the COAG Strategy on Water and Wastewater Services in Remote (including Indigenous) Communities - Queensland Capacity Building Program.

Contributed by: **John Conroy**, Senior Advisor, Department of Local Government and Planning, Queensland Government



Water Operators participating in a Group exercise



Some of the Far North Queensland Water operators at the seminar

Coagulation, Flocculation and Chemical Dosing Seminar

A large number of attendees from lots of areas around the country were privileged to attend an excellent one day seminar on Coagulation, Flocculation and Chemical Dosing in Canberra in November 2011. These processes are very important to all who work within the water/wastewater industry and there was an overwhelming demand by many operators and engineers to enrol for this training course.

As usual with a WIOA seminar, there were a number of very knowledgeable presenters who shared their insight, knowledge and vast experience on the subject matter. The introduction by Peter Mosse really helped to set the scene, and reinforced the duty of care that we all have within our industry. All our staff who attended picked up a lot of tips that will help them throughout their careers, and left very keen to try and apply some of the techniques to our plants.



Coag Floc workshop Canberra

Refreshing our knowledge from basic principles of Water treatment processes, various methods used to optimise water treatment processes, Jar testing procedures, critical control measures that can be adopted and methodologies used to provide the best water quality drinking water for the community were discussed and explained in detail at this seminar.

The demonstrators at the trade stalls presented the attendees some of the latest equipment available to adopt “best practice” in water treatment processes.

To try and reinforce the things learnt at the seminar, we went through some of the chemical dosing calculations with our staff on nightshift, and with the aid of the book provided, they were able to work through a number of calculations and identify a number of traps, even though none of them had done this before!

We would recommend all Water Industry Operators to participate in this very informative seminar to improve their knowledge and skills. We have witnessed that all who attended this seminar have been motivated to face the challenges to improve the performance of their individual treatment plants. WIOA Keep up the Good Work!!!

John Mihalyka, Senior Shift Supervisor, ACTEWAGL

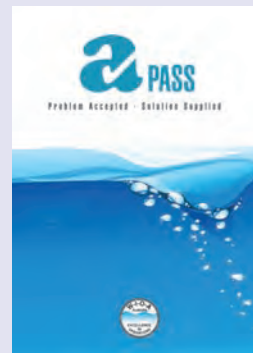
Athula Fernando, Water Industry Operator – LMWQCC/Stromlo/Googong WTP (ActewAGL)

Problem Accepted Solution Supplied PASS Award – Win a trip to NZ

Applications for the PASS Award close at the end of February and the winner will be announced at the 2012 WIOA Conference in Tamworth. So if you have come up with a good idea or a simple solution that you want to share with the rest of the industry, download the application template now and send in your application.

The winner will receive an all-expenses paid spot on the operators tour to NZ in 2012.

The best entries, including the winner of the award, will be published in the second edition PASS Award booklet. We hope that the booklet provides our members with useful tips on improving day-to-day work practices.



Conserving water at home, 10 tips to save water

1. Convert to a dual flush toilet.
2. Fix leaky taps.
3. Rinse veggies and dishes in a sink of water, instead of under a running tap.
4. Clean driveways and porches with a broom – not the hose!
5. Use your washing machine and dishwasher only when full.
6. Water your lawn and plants in the early morning or at night to avoid evaporation.
7. Keep a jug of water in the fridge, rather than running the tap each time you want a cold drink.
8. Take shorter showers.
9. Use mulch around trees and plants to reduce evaporation.
10. Install a rainwater tank for garden use or plumb it to the laundry and toilet.

CORPORATE MEMBERS NEWS

New National Water Resource Training Facility Officially Opened

The Federal Member for Holt, Anthony Byrne, officially opened the new national water resource training facility at Chisholm Institute Cranbourne.

Built with \$8.2 million in Australian Government funding, this facility includes 440 square metres of undercover training space and a permanent 36 by 6 metre sandpit. It can also accommodate heavy machinery, allowing students to get hands-on experience with earth moving plant equipment and be taught civil construction skills such as pipe-laying, trenching and shoring.

The new multi-purpose facility includes a pioneering water treatment plant, a water quality testing lab, industry research and development area, recycling programs and controlled environment horticulture facility.

Chisholm Institute Chief Executive Officer, Maria Peters said, "Chisholm regards our new facility as having value for the development of both individual and enterprise skills to ensure a strong future workforce for the water industry and one that will strongly benefit the community and support, long term, the development of Australia's capacity to effectively manage this high value resource."

"This facility is the first of its kind in the region and the size of the environment horticulture training centre is unparalleled in Australia," Mr Byrne said. "I am very proud that Cranbourne has been chosen as a place to host this facility, creating jobs and increasing training opportunities for people in our region."

The institute has already delivered successful workforce development programs to leading water authorities including SE Water, City West and Yarra Valley Water. The facility will benefit several vocational disciplines including water management and sustainability, plumbing, building and horticulture.



New Member Metso

Metso has developed a new technology with which municipal and industrial waste water plants are able to improve their performance and reduce the amount of chemicals used in sludge processing by even up to one third. The new technology features advanced in/on-line measurement systems, Metso Total Solids Transmitter and Metso Low Solids Measurement, for processing sludge. Thanks to the measurement systems, based on microwave and LED/laser technologies, it is now possible to separate dry solids and water from each other more accurately and efficiently than before. In this way, the amount of water treated at a plant can be significantly increased and the amount of chemicals used in the sludge drying process can be decreased remarkably.

The new technology offers the world's water treatment plants an opportunity to improve their performance. A large North American wastewater treatment plant has calculated that it saves even up to 30% in its annual USD 2.5 million chemical costs. In addition to that, savings are gained as the sludge handling and dry solids transportation costs decrease. The further use of the dewatered sludge in energy production is also significantly more efficient, as dewatered sludge contains less water than before.

More information contact timo.riippa@qualityteam.com.au (0412 413116) or sirkka.harrison@metso.com



- Lower energy consumption in dewatering
- Higher pumping and centrifuge capacity/efficiency
- Lower polymer consumption, no overdosing
- Less laboratory analysis
- Higher solids content in sludge
- Measuring range: 0...35 %TS and 0...0,5 % TSS
- Very little or practically no maintenance
- Depending on process capacity, the ROI can be surprisingly short
- More than 370 global TS references in waste water industry

Mixed sludge consistency test:



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:

Warren Andrusk, Mahesh Ankolekar, Steven Arnold, Vern Atkinson, Stephen Awizen, Regan Barratt, Corey Bates, Adam Bauerle, Nik Bergman, Adam Brakenridge, Gary Brown, Daniel Browne, Paul Byster, Glenn Carroll, Scott Casey, Greg Chapple, Glenn Christensen, Tony Ciampa, Mark Clarke, Tony Ciampa, Mark Clarke, Norm Cramp, Mark Dalzell, Melissa Debnam, Jack Dobinson, Lester Dore, Andrew Dowd, Kane Duncan, Tom Emmerton, Glenn Eveston, Dale Exon, Geoff Finucane, Chris Fixter, Stephen Ford, Dean Fricke, David Godsmark, Glenn Gorton, Vladislav Gromov, David Gutte, Kurt Haberfield, Michael Hall, Kari Harli, Joshua Hartfield, Troy Hartman, Craig Harvey, Michael Heathwood, Matthew Higginbotham, Paul Hopper, Jai Hudson, Colin Hurley, Bryan Huthcinson, Kate Johnson, Tim Joseph, Chris Keogh, Comeran Kervin, Steven Kugele, Brendan Ley, Daniel Long, Kevin Maloney, Henry Maro, Jayson Matthew, Damian McKenzie, Chris Meyer, Rodd O'Donnell, Susan O'Sullivan, Simon Overland, Michael Owen, Simon Page, Robert Painter, Sanath Palipana, Guy Palmore, Roger Parker, Jaek Passier, Mehul Patel, Carol Patterson, Andrew Peacock, Kim Peets, Gavin Perkins, Sam Raccosta, Jon Raines, Darrell Ralph, Craig Rawsthorne, Scott Reid, Shane Rethus, Timo Riippa, John Rolfe, Fred Sadler, David Sagnol, Teagan Schluter, Gary Settin, Wayne Sharp, Michael Sheehan, Jack Shill, Ian Slape, Gary Smith, Michael Standen, Russell Sutherland, Nick Sutton, David Taylor, Peter Taylor, Sally Ann Taylor, Scott Taylor, Isaac Thorne, Trent Turner, Yuri Vanderwalt, Shane Walker, Thomas Warren, Doug Webb, Luke Webster, Keane White, Clint Williams, Nathan Wills, Adrian Woehrle.

New **Corporate Members** include:

Central Queensland Plumbing, Turbu-Flow Water Conditioners, Emerson Process Management, Metso Automation, Becker Pumps Australia & Superior Pump Technologies, Kembla Watertach, The Watty Group, Colour Tech Coatings.

New **Utility Corporate Members** include:

Qld. Dept. Local Government & Capacity Building Group, Cairns Regional Council, Origin Energy.



DATES TO REMEMBER

- PASS AWARD (closes 1 March 2012)
- NSW Operator of the Year Nominations (closes 2 March 2012)
- Kwatye Prize (closes 20 July)

COMING EVENTS

Seminars

- **Half Day Field Trip to Murrumba Downs STP** – Queensland 23 February 2012
- **Weekend Seminar and WIOA AGM** – Shepparton 3 & 4 March 2012
- **Tassie Tour, Bicheno, Coles Bay and Swansea WTP's** – 23 March 2012 (TBC)
- **One day Interactive Seminar on Water Awareness and Distribution System Management** – Darwin Friday 27 April 2012
- **One day Interactive Seminar on Water Awareness and Distribution System Management** – Hobart Thursday 17 May 2012 (TBC)
- **One day Interactive Seminar on Water Awareness and Distribution System Management** – Launceston Friday 18 May 2012 (TBC)

Conferences

- **NSW Conference** – Tamworth 28 & 29 March 2012
- **Queensland Workshop** – Gold Coast 6 & 7 June 2012
- **Victorian Conference** – Bendigo 5 & 6 September 2012

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NEXT EDITION

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