



IRRIGATION AUSTRALIA'S 2013 REGIONAL CONFERENCE
SHARING IRRIGATION KNOWLEDGE FOR BETTER OUTCOMES

CONFERENCE HANDBOOK



GRIFFITH EXIES CLUB 28-30 MAY 2013
GRIFFITH, NEW SOUTH WALES



#IAL2013 or @IrrigationAus



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WELCOME – IRRIGATION AUSTRALIA LIMITED

Dear Industry Colleagues,

On behalf of Irrigation Australia Limited, welcome to our 2013 Regional Conference 'Sharing irrigation knowledge for better outcomes', which is being held in Griffith NSW, from May 28-30.

Please join us in welcoming Duane Findley to his first conference as CEO, who has recently taken over the role from Ian Atkinson. During the next few days, Duane would like to hear your thoughts on IAL and the services which our organisation delivers.

It's fantastic to see the Regional Conference return to a grassroots irrigation area and one of the most productive food bowls in Australia – the Murrumbidgee Irrigation Area. Following the success of the 2011 regional event in Launceston, Tasmania, we have headed inland to one of the oldest irrigation regions. Griffith, its irrigators and associated companies, have much to offer in the way of innovation and success in this industry. We will hear from a range of Australian experts during the conference, as well as our keynote international speaker – Dr Brent Clothier. As our theme indicates, we anticipate better outcomes for our industry through sharing our knowledge.

Duane and I look forward to meeting members and those delegates who are new to the industry or the IAL conference. This event is designed to provide valuable

insights and information on the latest technologies and irrigation practice developments both in Australia and internationally. The IAL conference brings a cross section of the industry together, providing an ideal learning opportunity as well as chance to meet and network with others in this field. Previous conferences have been extremely successful for attendees and we anticipate significant benefits from this year's event.

On behalf of IAL, we hope you enjoy the conference, irrigation tours and events, and encourage you to sample some of the MIA's high quality food and wine during your stay.



Ian Moorhouse
Board Chair, Irrigation Australia Limited



WELCOME - CONFERENCE CHAIR

On behalf of the Conference Organising Committee, I would like to welcome you to Griffith, the Murrumbidgee Irrigation Area and the IAL Regional Conference: 'Sharing irrigation knowledge for better outcomes'.

This is a wonderful opportunity to be part of a conference that helps shape our industry and outlines the major issues we face. Our committee has worked diligently to develop an insightful conference and workshop program that involves a range of experts and relevant topics to our industry. There is also the chance to see first-hand some of the agribusinesses in the MIA which rely on irrigation, and view the innovation and efficiency measures being undertaken in this region.

The MIA recently celebrated its 100th anniversary, recognising the importance of water to thriving local communities. From its early pioneering days, the MIA has grown into a significant food producing area with a focus on sustainability and efficiency. Over the past 100 years, we have learned much about the management of irrigation water and hope to share some of that knowledge during the next few days. We also hope you will take the opportunity to experience Griffith's multicultural influences by trying some of our superb food and wine.

Thank you for your attendance at the conference, I hope you have a rewarding time and I look forward to meeting you during the course of the event.



Iva Quarisa
Conference Chair



IRRIGATION AUSTRALIA LIMITED CEO - DUANE FINDLEY

Duane Findley is the Chief Executive Officer of Irrigation Australia Limited and has an extensive management background across a range of industries.

Before joining IAL in April 2013, Mr Findley was the Group General Manager, Business Services at the Housing Industry Association Limited where he was involved in creating and driving the growth strategies for key business units.

He has also worked for Sydney Airport Corporation in a Project Management position related to critical long-term infrastructure projects; and led National Business Development – Clients and Industries – for PriceWaterhouse Coopers Australia.

Mr Findley has held previous roles with Australia Business Limited and NSW Freight Rail/FreightCorp. He is a highly skilled general manager with expertise in team leadership, financial management and operational improvements.



Duane Findley
CEO



CONFERENCE COMMITTEE

Organising Committee

Ian Moorhouse, *Chair Irrigation Australia Ltd Board*

Andrew Kelly, *Get Connected Consulting*

Iva Quarisa, *NSW Department of Primary Industries*

Ian Atkinson, *Nature Foundation SA*

Karen Simpson, *PHL Surveyors*

Karen Hutchinson, *Murrumbidgee Irrigation*

Austin Evans, *Coleambally Irrigation*

Professional Conference Organiser

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- Ningana Enterprises
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CONFERENCE PROGRAM

Legend

- Open Events
- Breaks
- Concurrent Sessions
- Workshops
- Bus Tours

***SIG** Special Interest Group

* The Conference organisers reserve the right to change speakers, events, rooms and/or session times and other details as necessary.

Tuesday 28 May 2013:

Time	Session	Venue
5:00pm – 6:00pm	Irrigation Australia General Meeting	Exies, Mirrool Room 3
6:00pm – 8:00pm	Outpost Central Welcome Reception – Opening of Exhibition	Exies, Mirrool Room 1

Time	Session				Venue
8:30am–8:35am	Welcome from Conference Chair – Iva Quarisa				Gemini Function Centre
8:35am–8:40am	Welcome to Griffith – Brett Stonestreet, Griffith City Council				Gemini Function Centre
8:40am–9:00am	Welcome from Irrigation Australia CEO, Duane Findley				Gemini Function Centre
9:00am–9:30am	NSW Office of Water Commissioner, David Harriss speaking on Basin Plan Implementation				Gemini Function Centre
9:30am–10:00am	Environmental Irrigation – John Foster, Commonwealth Environmental Water Office				Gemini Function Centre
10:00am–10:30am	Reducing the Water Footprint of Irrigated Agriculture – Dr Brent Clothier, New Zealand Institute for Plant and Food Research				Gemini Function Centre
10:30am–11:10am	Morning Tea Relocate to Exies				
11.10am-12.30pm	Session 1- Standards and Codes of Practice SIG	Session 2- Irrigation Water Suppliers SIG	Session 3- Irrigation Science	Session 4 - Irrigation Farming Stream	
	Ibis Room	Alfresco Room	Mirrool Room 2	Mirrool Room 3	
	Facilitator: Tony Kanaris, Chairman, IAL Standards Working Group	Facilitator: Andrew Kelly, Get Connected Consultancy	Facilitator: Anne-Maree Boland, IAL Board Member	Facilitator: Michael Grabham, NSW Department of Primary Industries	
	Tony Kanaris, Broadwater Consultants Standards & Codes of Practice – Development Progress.	Peter Ebner, Lower Murray Water Water Trading from a Victorian Perspective – Where it is Heading?	Kelvin Montagu, Colo Consulting Climate Risk, Andrew Bolt and Irrigation Efficiency.	Jay Murray, Milrea Pastoral Company NIPSI Travel Recipient.	
	Karen Murday, Qld Department of Natural Resources and Mines How Standards & Codes of Practice underpins best practice.	Geoffrey Enever, Goulburn-Murray Water Transforming GMW Business whilst Modernising our Irrigation Delivery System.	Terry Flynn and Penny Winbanks Southern Rural Water Bringing groundwater to the surface.	Dr John Bennett, University of Southern Queensland Using marginal quality saline-sodic irrigation water sustainably.	
	Pat Daley, Daley's Water Services Importance of Standards & Codes of Practice to Growers and Training.	Gavin McMahon, Central Irrigation Trust Energy tariffs and what it means to irrigation companies.	Des Whitfield, NSW Department of Primary Industries Satellite-based appraisal of water use and pasture condition in the Macalister Irrigation District.	Rob Rendell, RM Consulting Group Fast flow and modernisation – what is possible?	
		Dave Gilbert, Murrumbidgee Irrigation Modernising Murrumbidgee Irrigation's Delivery Infrastructure after 100 Years: the Lake Wyangan Modernisation Project.	Michael Scobie, University of Southern Queensland Knowledge Management System for Irrigation - Integration and Development of Tools.	Rabi Maskey, VIC Department of Primary Industries Automatic border check irrigation under farm water program: is it a good investment?	
12.30pm-1.40pm	Xylem Lunch, Exies, Mirrool Room 1				

1.40pm-3.00pm	<p>Session 5 – Centre Pivot and Lateral Move SIG</p> <p>Alfresco Room</p> <p>Facilitator: Debbie Atkins, IAL Training Manager</p> <p>Adrian Hayes, MIA Rural Services Spray irrigation from an operator’s perspective.</p> <p>Peter Smith, NSW Department of Primary Industries Water and energy efficiency of centre pivots on dairies.</p> <p>Rory van Niekerk, WaterBiz Pty Ltd How efficient are Centre Pivot and Lateral Move machines at irrigating cotton?</p>	<p>Session 6 – Drip Irrigation SIG</p> <p>Mirrool Room 3</p> <p>Facilitator: Peter Durand, Netafim</p> <p>Gennaro Vellotti and Kosi Kalogernis, MWH Global Calculating the energy requirements of irrigation systems.</p> <p>Shahbaz Mushtaq, Southern Queensland Univeristy Strategies for reducing the pressure requirements of drip systems.</p> <p>Case Study – Mark Vogel, Irrigation Specialists, Leeton.</p>	<p>Session 7 – Environmental Irrigation Outcomes</p> <p>Mirrool Room 2</p> <p>Facilitator: Anne-Maree Boland, IAL Board Member</p> <p>Kaye Dalton, The Risora Group Nimmie-Caira – A Rare Opportunity in Environmental Water Management.</p> <p>Ian Atkinson, Nature Foundation SA Environmental Irrigation in the SA Murray Valley.</p> <p>Denis Flett, Victorian Environmental Water Holder Victorian Environmental Allocation.</p>	<p>Workshop 1 – Certification of Professionals</p> <p>Ibis Room</p> <p>Facilitator: Dr John Blackwell</p> <p>Please refer to Workshop Overview on page 15 for further details.</p>	<p>Session 8 – Griffith Bus Tour</p> <p>Facilitator: Alan Brink</p> <p>Commencing at 12.30pm and continues until 5:30pm Please note a packed lunch will be provided and refer to Bus Tour Overview on page 20 for further details.</p>
3.00pm-3.30pm	Afternoon Tea Exies, Mirrool Room 1				
3.30pm-5.30pm	<p>Workshop 2 – IA Committee on Irrigation Drainage (IACID)</p> <p>Alfresco Room</p> <p>Facilitator: Willem Vlotman, Chairman of IACID</p>	<p>Workshop 3 – Design Software</p> <p>Mirrool Room 3</p> <p>Facilitator: Brett Polkinghorne, PHL Surveyors</p>	<p>Workshop 4 – Building on Irrigation’s Image</p> <p>Mirrool Room 2</p> <p>Facilitator: Peter Hayes, IAL Board Member</p>	<p>Workshop 5 – Mobility Solutions</p> <p>Ibis Room</p> <p>Facilitator: Vern Costelow IAL Board Member</p>	
5.30-630pm	AWMA Water Control Solutions Happy Hour Exies, Mirrool Room 1				
7.30pm-Midnight	Comdain Infrastructure Conference Dinner Bagtown Inn				

9.00am-10.40pm	Session 9 – Best Practice Surface Irrigation SIG	Session 10 – On Farm Modernisation	Session 11 – Irrigation Water Supplies	Session 12 – Coleambally Bus Tour
	<p>Mirrool Room 3</p> <p>Facilitator: Sam North, NSW Department of Primary Industries</p> <p>Dallas Stott Modernising on-farm surface irrigation in the rice industry. A farmer’s perspective.</p> <p>Phil Price, Price Merrett Consulting Modernising on-farm surface irrigation in the dairy industry. A designer’s perspective.</p> <p>Dr Lance Pendergast, Department of Agriculture, Fisheries and Forestry Modernising on-farm surface irrigation in the cotton industry. A researcher’s perspective.</p> <p>Prof. Rod Smith, University of Southern Queensland Automation and real time optimisation. Managing time to cut-off.</p> <p>Peter Moller, Rubicon Water Essential elements of precision surface irrigation.</p> <p>Terry Batey, VIC Department of Primary Industries Better ways to share ideas. Modernising how we communicate.</p>	<p>Mirrool Room 2</p> <p>Facilitator: Mike Ridley, Coleambally Irrigation</p> <p>Charles Thompson, RM Consulting Group Quantifying the benefits of Irrigation Modernisation in the GMID.</p> <p>Michael Cutting, Natural Resources – SA Murray Darling Basin Irrigation Efficiency Investment in the SA Murray- Darling Basin Region.</p> <p>Matthew Plunkett, Damien Doyle and Peter Conasch, NSW Department of Primary Industries WaterSmart Farms – an ‘On Farm’ Irrigation Modernisation Success Story!</p> <p>Daryl Gibbs, Ricegrowers’ Association of Australia On Farm Irrigation Efficiency Program (OFIEP).</p>	<p>Alfresco Room</p> <p>Facilitator: Ian Moorhouse, IAL Board Chair</p> <p>Alex Marshall, Comdain Infrastructure Modernisation of Irrigation Schemes including Channel Lining.</p> <p>Greg Stanford, Tasmanian Irrigation Update of developments in Tasmania.</p> <p>Dan Coutts, SunWater Ord Stage 2.</p> <p>Chris Green, Murrumbidgee Irrigation Lake View Branch Canal, Murrumbidgee Irrigation: Selecting the re-lining option.</p>	<p>Facilitator: Austin Evans, Coleambally Irrigation</p> <p>Continues until 12:30pm Please refer to Bus Tour Overview on page 21 for further details</p>
10.40am-11.10am	Morning Tea Exies, Mirrool Room 1			

11.10am-12.30pm	<p>Session 13 – Irrigation Science and Practice</p> <p>Mirrool Room 2</p> <p>Facilitator: Colin Campbell IAL Board Member</p> <p>Michael Grabham, NSW Department of Primary Industries Bankless Channel Irrigation.</p> <p>Phil Szabo, University of Southern Queensland Development of a pump efficiency monitor for use in cotton irrigation.</p> <p>Adrian Piani, URS Australia Pty Ltd Reflections on the Basin Plan and Challenges for the Future.</p> <p>Prof. Rod Smith, University of Southern Queensland Selection of flow rate and irrigation duration for high performance bay irrigation.</p>	<p>Session 14 – Governance Issues</p> <p>Alfresco Room</p> <p>Facilitator: Anne-Maree Boland, IAL Board Member</p> <p>Jenni Mattila, Mattila Lawyers Directors’ duties in the water industry.</p> <p>Denis Sparrow, Rural Solutions SA Annual water use reporting and change at the District Scale.</p> <p>Peter Roberts, Goulburn-Murray Water Water Recovery Estimation in Irrigation Channel Systems – Lesson learned so far.</p>	<p>Session 15 – Irrigation Practice</p> <p>Mirrool Room 3</p> <p>Facilitator: Peter Smith, IAL Board Member</p> <p>Gavan Lamb, VIC Department of Primary Industries Helping dairy farmers to use evapotranspiration (ETo) for irrigated pastures.</p> <p>John Hornbuckle, CSIRO Land and Water Utilising remote sensing for irrigation demand management and water ordering for large scale irrigation systems.</p> <p>Wendy Quayle, CSIRO Land and Water Effects of biochar on irrigation water and fertilizer use productivity.</p> <p>Jon Fawcett, Sinclair Knight Merz Advances in groundwater dependent ecosystem management: The GDE Atlas and GDE Tool Box.</p>
12.30pm-1.30pm	<p>Greenworks/Lining Solutions Lunch Exies, Mirrool Room 1</p>		
1.30pm-3.00pm	<p>Panel Session - Sharing Irrigation Knowledge for Better Outcomes - Mirrool Rooms 2 & 3 MC: TBC Panellists: Dr Brent Clothier (Science), John Hornbuckle (Global), John Culleton (Delivery) and Kaye Dalton (Environment)</p>		
3.00pm-3.05pm	<p>Conference closed Exies, Mirrool Rooms 2 and 3</p>		
3.05pm-3.30pm	<p>Afternoon Tea Exies, Mirrool Room 1</p>		

INTERNATIONAL KEYNOTE SPEAKER: DR BRENT CLOTHIER



Dr Brent Clothier is Science Group Leader, Systems Modelling, at the New Zealand Institute for Plant and Food Research Limited.

Dr Clothier has 38 years of research experience and is a published author of research journal articles and books. He is an internationally renowned speaker, having addressed conferences in the US, Spain, Japan and Germany.

Dr Clothier is currently studying soil physics and the theory of water and chemical movement through soil. His research covers irrigation science and the footprinting of primary products for carbon, water, energy, agrichemicals and biodiversity.

A previous research project involved sapflow measurement devices to measure plant transpiration and root uptake of water, and these devices are now in common use around the world.

Dr Clothier has researched tension infiltrometers to measure the unsaturated hydraulic properties of soil; the Growsafe Calculator which provides fit-for-environment pesticide options via a Decision Support Tool; and farm strategies for contaminant management involving nutrient loss limits linked to natural-capital values.

He has also previously held positions at the NZ Life Cycle Management Centre, Institute of Food - Health and Human Nutrition; School of Earth and Environment – University of Western Australia; HortResearch; University of Guelph – Canada; and the CSIRO – Canberra.

