

National Groundwater Conference 2010

Preliminary Program at 3 September 2010

Sunday 31 October

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| 1700-1930 | Registration Desk open |
| 1730-1930 | <p>Social Event: Welcome Reception sponsored by National Water Commission</p> <p>Opening address: Government Official</p> <p>Sponsor address: National Water Commission Main Foyer, National Convention Centre, Canberra</p> <p><i>* Please book your attendance via the registration form</i></p> |

Monday 1 November

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| 0800-1800 | Registration Desk open | | | | | | | |
| 0830-0900 | <p>Indigenous Welcome to Country: Representative of the Ngunnawal People</p> <p>Welcome to Australia: Australian Government Official</p> <p>Welcome to the Conference: Don Blackmore</p> | | | | | | | |
| 0900-1000 | <p>Headline Plenary Address: Stephen Foster</p> <p><i>Intensive groundwater use – inspiration and frustration in the quest for sustainability</i></p> | | | | | | | |
| 1000-1030 | <p>Platinum Sponsor Plenary Address: National Water Commission</p> | | | | | | | |
| 1030-1100 | Morning Tea | | | | | | | |
| 1100-1300 | Hot Topic Session 1 (HT1): <i>The Challenges of Sustainable Management in Australia</i> | | | | | | | |
| 1100-1145 | <p>Plenary Address: Ray Evans</p> <p><i>The challenges of sustainable management</i></p> | | | | | | | |
| 1145-1215 | <p>Plenary Address: Rob Freeman</p> <p><i>Murray-Darling Basin Plan - Overview</i></p> | | | | | | | |
| 1215-1300 | Hot Topic Session 1: Panel Discussion | | | | | | | |
| 1300-1400 | Lunch | | | | | | | |
| 1400-1530 | Concurrent Session 1 | | | | | | | |
| | <p>1A - Current Water Policy Environment</p> <p>Topic: <i>The Murray-Darling Basin Plan</i></p> | <p>1B - Challenges and Threats to groundwater management</p> <p>Topic: Estimation of sustainable yields</p> | <p>1C - Future Opportunities</p> <p>Topic: <i>Deep Groundwater Resources, geothermal and carbon geo-sequestration</i></p> | <p>1D - Challenges and Threats to groundwater management</p> <p>Topic: <i>Groundwater System Mapping and Characterisation</i></p> | <p>1E - Challenges and Threats to groundwater management</p> <p>Topic: <i>Groundwater in the Coastal Zone</i></p> | <p>1F - Capacity Building</p> <p>Topic: <i>Information Requirements</i></p> | <p>1G - Future Opportunities</p> <p>Topic: <i>Arid Zone Groundwater Resources</i></p> | <p>Groundwater Users Group Workshop (Invited delegates only)</p> <p>Chair: Andrew Kelly</p> |

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| 1400-1430 | Tariq Rana <i>Murray Darling Basin groundwater planning under the Basin Plan. Part 1: Framework for change</i> | Glen Walker <i>SY projects- achievements – but where to from now?</i> | Phil Commander <i>Deep groundwater resources in Australia</i> | Tim Munday <i>Regional lines, select traverses, calibrated data - the future for airborne EM in aquifer and groundwater characterisation?</i> | Adrian Werner <i>Seawater intrusion vulnerability assessment: Improving on existing large-scale approaches</i> | Carl Daamen <i>Conceptual models of groundwater systems for regional water balance</i> | Steven Lewis <i>Regional mapping of palaeovalley groundwater resources in arid Australia</i> | | |
| 1430-1450 | Lucy Lytton <i>Murray Darling Basin groundwater planning under the Basin Plan. Part 2: Policy Development</i> | Tony Smith <i>Aquifer Sustainability Factor: a review of previous estimates</i> | Alison Kirkby <i>Overview of geothermal energy in Australia</i> | James Reid <i>Airborne electromagnetics for groundwater: what it can and can't do</i> | Steven Pells <i>Potential impact of sea-level rise on coastal aquifers</i> | Elisabetta Carrara <i>Groundwater storage and water accounting: an open discussion</i> | Hazil Koombleri <i>Understanding the sustainability of the West Canning Basin aquifers with the use of isotope hydrogeology, airborne geophysics and numerical modelling</i> | | |
| 1450-1510 | Robert McLeish <i>Murray Darling Basin groundwater planning under the Basin Plan. Part 3: Management outcomes</i> | Joseph Guillaume <i>Managing uncertainty in determining sustainable aquifer yield</i> | Soazig Corbel <i>Implementation of a multi-disciplinary data repository to aid geothermal exploration</i> | Jon Clarke <i>The use of AEM as part of a hydrogeological systems approach in the Ord River Irrigation Area, Western Australia</i> | Prachi Dixon-Jain <i>A national scale vulnerability assessment of seawater intrusion in Australian coastal aquifers</i> | Milos Pelikan <i>A focus on the Z dimension in Groundwater - Profile databases as a means of information discovery and communication of aquifer structure</i> | Derwin Lyons <i>Hydrogeology of the southeastern Arkaringa Basin and overlying southwestern Eromanga Basin, and the implications for sustainable water supply development in central South Australia</i> | | |
| 1510-1530 | Ray Evans <i>Hydrogeology behind the lines: the concepts used to develop management boundaries for groundwater in the Basin Plan tbc</i> | Brendan Cossens <i>A water balance approach to determining sustainable limits and groundwater resource management options</i> | Ludovic Ricard <i>Sustainability and management of HSA geothermal systems in the Perth metropolitan area</i> | Pauline English <i>Application of airborne electromagnetic (AEM) data for mapping buried palaeovalleys in the Great Sandy Desert, Western Australia</i> | Keith Bristow <i>Towards improved management of the Lower Burdekin Coastal floodplain groundwater systems</i> | Presenter tbc <i>Innovative approach to capture bore construction details</i> | Maria Woodgate <i>Groundwater in palaeovalleys in the Northern Territory</i> | | |
| 1530-1600 | Afternoon Tea | | | | | | | | |
| 1600-1740 | Concurrent Session 2 | | | | | | | | |
| | 2A - Current Water Policy Environment | 2B - Challenges and Threats to groundwater management | 2C - Future Opportunities <i>Topic: Deep</i> | 2D - Challenges and Threats to groundwater management | 2E - Challenges and Threats to groundwater management | 2F - Capacity Building <i>Topic:</i> | 2G - Challenges and Threats to groundwater management | Groundwater Users Group (Continued) | |

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| | Topic: <i>The Murray-Darling Basin Plan (ctd)</i> | Topic: <i>Estimation of sustainable yields</i> | <i>Groundwater Resources and aquifers for geothermal and carbon geo-sequestration</i> | Topic: <i>Groundwater System Mapping and Characterisation</i> | Topic: <i>Groundwater in the Coastal Zone</i> | <i>Groundwater Monitoring</i> | Topic: <i>Arid Zone Groundwater Resources</i> |
| 1600-1620 | Russell Crosbie <i>Groundwater recharge modelling as an input to the Basin Plan</i> | Angela Bush <i>Steps towards estimation of meaningful sustainable yields in a regional aquifer</i> | Soazig Corbel <i>Building 3D geological models for groundwater and geothermal exploration</i> | Damon Greenhalgh <i>Groundwater Science in Support of the Cloudbreak Water Management Scheme (Stage 1 of the Papa Warringka)</i> | Eloise Larsen <i>Iron bacteria in Australian estuarine catchment groundwater</i> | Matthew Potter <i>Strategic planning for groundwater monitoring needs</i> | Ryan Vogwill <i>Toolibin Lake 2010, combining hydrogeology, remote sensing and plant ecophysiology to explain the response to management interventions</i> |
| 1620-1640 | Brian Barnett <i>Groundwater modelling in the Murray Darling Basin to inform sustainable extraction limits</i> | Fred Leaney <i>Recharge and discharge estimation in data poor areas using empirical relationships</i> | Lynn Reid <i>Modelling hot sedimentary geothermal aquifers: a groundwater perspective</i> | Greg Street <i>Groundwater geophysics study of Pilbara Coast</i> | Darren Alcoe <i>Evaluating approaches to coastal aquifer management: a comparison of trigger-level and flux-based paradigms</i> | Bob Knowles <i>Benefits of refurbishing the State Observation Bore Network for groundwater resource management</i> | Pauline English <i>Groundwater investigations in palaeovalleys in the Murchison region, Western Australia</i> |
| 1640-1700 | Eliza Wiltshire <i>The recharge risk assessment method - informing groundwater extraction limits for the Murray-Darling Basin</i> | Lazarus Leonhard <i>Gascoyne River alluvial aquifer, groundwater management and tools</i> | Ludovic Ricard <i>Assessing sustainability of geothermal resources for hot sedimentary aquifer systems</i> | Kok Piang Tan <i>The use of airborne electromagnetics (AEM) as part of a hydrogeological systems approach to map aquifer systems and address specific salinity management questions in the Barr Creek-Gunbower reach of the Murray River</i> | Sreekanth Janardhana <i>Management models for optimal and sustainable utilization of coastal aquifers using linked simulation-optimization</i> | Malcolm Graham <i>Risk ranking of high-risk artesian bores - Victorian State Observation Bore Network</i> | John Wischusen <i>Deep groundwater resources at Ti Tree, Central Australia principles</i> |
| 1700-1720 | Kate Dowsley <i>Baseflow assessment for unregulated streams in the Murray-Darling Basin</i> | Ben Hall <i>Groundwater resource appraisal for South East Melbourne, Victoria</i> | Cara Danis <i>A static method for collecting temperatures in deep groundwater bores for geothermal exploration and other applications</i> | Yusen Ley-Cooper <i>Mapping seawater intrusion (SWI) using airborne electromagnetics (AEM) in coastal plain aquifers near Darwin, Northern Territory</i> | Jay Punthakey <i>Development of a groundwater management and seawater intrusion model for the Macleay Sands aquifer</i> | Alan Wade <i>Victorian State Observation Bore Network - decommissioning of high-risk artesian bores</i> | Simon Fulton <i>Localised recharge in the arid zone: a case study of the Finke River, Great Artesian Basin, Australia</i> |

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| 1720-1740 | <i>Discussion session</i> | Eric Rooke Hornsby Shire Council LGA - groundwater sustainable yields study | Zeb Etheridge Aquifers as heat sinks: the United Kingdom experience | Steve Tickle Utilising airborne electromagnetics (AEM) to map groundwater resources in dolostone and karstic aquifers in the Daly Basin, Northern Territory, Australia | Sunil Varma Offshore groundwater discharge in Geographe Bay from the Southern Perth Basin aquifers, Western Australia | Michael Mozina Development of an adaptive groundwater monitoring framework to inform salinity management across the Victorian Mallee region | Andrew Tankey Fossil groundwater extraction in Australia: Social, environmental and economic implications and the need for management principles | |
| 1740-1840 | Poster Viewing Session – Exhibition Hall | | | | | | | |
| 1900 | Social Event: Cultural Experience sponsored by Murray Darling Basin Authority Sponsor Address: Murray Darling Basin Authority Australian Portrait Gallery <i>* Please book your attendance via the registration form</i> | | | | | | | |

Tuesday 2 November

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| 0800-1700 | Registration Desk open | | | |
| 0830-0930 | Headline Plenary Address: Robert Glennon <i>Presentation title tbc</i> | | | |
| 0930-1000 | Plenary Address: Tony Slatyer <i>Water Policy Environment, and emerging water policy challenges</i> | | | |
| 1000-1030 | Morning Tea | | | |
| 1030 | Hot Topics Session 2 | | | |
| | HT2A - Water Policy Environment Topic: How can science create new policy and management options? | HT2B - Challenges and Threats to Groundwater Management Topic: Surface-groundwater connectivity | HT2C - Future Opportunities and Challenges Topic: Coal Seam Gas | HT2D - Challenges and Threats to Groundwater Management Topic: Sustainable, Integrated Groundwater Management |
| 1030-1100 | Don McFarlane <i>Assessing future groundwater yields under climate change (SW Western Australia)</i> | Peter Cook <i>What is a disconnected stream?</i> | Speaker tbc <i>CSG - overview (QNRMW + New South Wales): what and where is CSG? tbc</i> | Greg Russell <i>Challenges to groundwater management in a metropolitan environment</i> |
| 1100-1130 | Peter Dillon <i>Urban stormwater re-use - Adelaide MAR</i> | Rob Brownbill <i>Interconnection of surface and groundwater systems - river losses from losing/disconnect streams</i> | Randall Cox <i>Policy and Management Overview- a Qld perspective</i> | Chris McAuley <i>Secure allocation, future entitlements - integrated groundwater system based management framework for Victoria</i> |
| 1130-1200 | Ken Lawrie <i>Managed aquifer recharge to secure Broken Hill's water supply - tbc</i> | Ian Jolly and G. Podger <i>Modelling groundwater - surface water interactions in the new generation of river</i> | Speaker tbc <i>Industry perspective</i> | Imogen Fullagar <i>Translating 'one resource water management' from concept to practice in mature irrigation systems of the southern</i> |

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| | | systems models for Australia | | | | Murray Darling Basin | | |
| 1200-1230 | <i>Hot Topic Session 2A: Panel Discussion</i> | Kate Dowsley <i>Developing a national framework and guidelines for integrated management of connected groundwater/surface water systems</i> | | | <i>Hot Topic Session 2C: Panel Discussion</i> | Steve Barnett <i>Management approaches for non-renewable groundwater resources</i> | | |
| 1230-1330 | Lunch | | | | | | | |
| 1330-1440 | Concurrent Session 3 | | | | | | | |
| | 3A - Current Water Policy Environment Topic: Water allocation planning, and management of over-allocation | 3B - Challenges and Threats to groundwater management Topic: Surface-groundwater connectivity | 3C - Challenges and Threats to groundwater management Topic: Risks to groundwater quality | 3D - Challenges and Threats to groundwater management Topic: Groundwater visualisation | 3E - Challenges and Threats to groundwater management Topic: Groundwater System Mapping and Characterisation | 3F- Future Opportunities Topic: Coal Seam Gas | 3G - Challenges and Threats to groundwater management Topic: Groundwater in the Coastal Zone | 3H - Future Opportunities Topic: Deep Groundwater Resources and aquifers for geothermal and carbon geo-sequestration |
| 1330-1400 | Randall Nott <i>Cross border peace in a time of water wars</i> | Sebastien Lamontagne <i>Field assessment of the connection status and recharge rate in losing streams</i> | Wendy Timms <i>Evaluating groundwater quality trends, risks of aquifer salinisation and aquifer connectivity, Namoi catchment, Murray-Darling Basin</i> | Steve Mathers <i>The role of geological framework models in groundwater management and modelling</i> | Andrew Fitzpatrick <i>Direct water detection and hydraulic properties estimation using the latest magnetic resonance sounding technology in Australia</i> | Presenter tbc <i>A risk-based approach to cumulative effects analysis for the Australian Coal Seam Gas Industry</i> | John Williams <i>Modelling impacts of climate change and groundwater extraction on coastal groundwater quality and groundwater dependent ecosystems of New South Wales</i> | Andrew Feitz <i>Groundwater and geological storage of carbon dioxide</i> |
| 1400-1420 | Ross Carruthers <i>Using risk assessments to drive sustainable groundwater management</i> | James McCallum <i>Methods for quantifying groundwater-surface water interactions in 10 catchments</i> | John Webb <i>Tectonic/volcanic control on salinisation of Bet Bet Creek, Central Victoria</i> | Bruce Gill <i>The use of 3D geological mapping for groundwater resource appraisal and management</i> | Bradley Keane <i>The application of Surface Nuclear Magnetic Resonance (SNMR) geophysical technique for evaluation of recharge mechanisms at Gnarjara Mound, Western Australia</i> | Wendy McLean <i>Isotopic tools for assessing aquifer connectivity during coal seam gas exploration</i> | Seng Chee Poh <i>Tracing temporal variability of groundwater fluxes in tidal wetlands using radon isotopes and electrical conductivity</i> | Patrice de Caritat <i>An overview of the CO2CRC Otway Geosequestration Project, Victoria, Australia</i> |
| 1420-1440 | Martin O'Rourke <i>Peel Valley water sharing plan, an integrated approach</i> | David Rassam <i>Assessing the impacts of groundwater development on low flows in rivers using resource indicators</i> | Matt Lenahan <i>Groundwater redox controls on the mobility of nitrogen in a karstic aquifer system in tropical Northern Australia</i> | Malcolm Cox <i>Visualisation modelling in 3D of an alluvial aquifer system at a valley - wide scale to understand</i> | David Allen <i>Transient electromagnetic transects over the MacIntyre River Alluvium</i> | Sanjeev Pandey <i>CSG technical issues in Queensland</i> | Zijuan Deng <i>Canopy enhanced chloride deposition and its implication for chloride mass balance method modification in</i> | Allison Hortle <i>Groundwater monitoring at the Otway project site, Australia</i> |

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| | | | | groundwater status: Lockyer, Queensland | | | coastal area | |
| 1440-1520 | Melbourne Cup Afternoon Tea sponsored by Boart Longyear | | | | | | | |
| 1520-1720 | Concurrent Session 4 | | | | | | | |
| | 4A - Current Water Policy Environment Topic: Water allocation Planning, and management of over-allocation | 4B - Challenges and Threats to groundwater management Topic: Surface-groundwater connectivity | 4C - Challenges and Threats to groundwater management Topic: Risks to groundwater quality | 4D - Challenges and Threats to groundwater management Topic: Groundwater visualisation | 4E - Challenges and Threats to groundwater management Topic: Groundwater System Mapping and Characterisation | 4F - Challenges and Threats to groundwater management Topic: Groundwater modelling | 4G - Challenges and Threats to groundwater management Topic: Groundwater and climate change | 4H - Challenges and Threats to groundwater management Topic: Groundwater in cities and towns |
| 1520-1540 | Ken Heidke <i>Groundwater for life! A case study for sustainable groundwater management</i> | Linda Holz <i>How useful is surface water unaccounted difference for quantifying groundwater-surface water inter-connectivity?</i> | Luke Wallace <i>Acid sulfate soils in groundwater resource aquifers: Macleay Sands Aquifer, Hat Head National Park case-study</i> | Allan James <i>GVS: a flexible, low-end, 3D visualisation framework for enhancing conceptual groundwater models for community, management and simulations</i> | Jon Clarke <i>High resolution geological logging and hydrogeochemical sampling using sonic drilling</i> | Danica Jakovovic <i>A numerical modelling assessment of saltwater up-coning: comparison with experimental observations</i> | Scott Johnston <i>Mobilisation of groundwater arsenic at the tidal fringe: hydro-geochemical coupling in seawater inundated coastal lowlands</i> | David Free <i>Toowoomba water supply - groundwater to the rescue</i> |
| 1540-1600 | Susan Worley <i>Managing groundwater through allocation planning and licensing in Western Australia</i> | Martin S. Andersen <i>On the temporal variability of streambed hydraulic conductivity</i> | Michael Mozina <i>Bore casing deterioration - value management approaches for environmental and cost impact abatement</i> | Amy Hawke <i>A 3D visualisation model applied to a thick, multi-layered alluvial groundwater system under stress: Condamine Valley, Queensland</i> | David Schafer <i>Resolving the Yarragadee aquifer Allanooka and Casuarinas subareas, Northern Perth Basin, Western Australia</i> | Roger Cranswick <i>Understanding groundwater impacts on surface water - a catchment scale approach</i> | Ty Watson <i>Transience of seawater intrusion in response to sea-level rise</i> | Greg Russell <i>Managing the groundwater impacts of construction in Sydney, New South Wales</i> |
| 1600-1620 | Brendan Dimech <i>Water allocation plan for the Tindall Limestone Aquifer, Mataranka, Northern Territory</i> | Liz Webb <i>Enhancing connected groundwater and surface water management with new techniques in geochemistry</i> | Bear McPhail <i>A conceptual hydrogeochemical model of groundwater salinity in the Lower Murrumbidgee</i> | Milos Pelikan <i>Groundwater Management in 3D - a case studying using 3D to communicate the 3D nature of groundwater management arrangements in Victoria</i> | | Mark Gallagher <i>The Groundwater Operational Management Package (aka GWOMP)</i> | Vanessa Wong <i>Sea-level rise impacts on water quality: interactions between porewater, surface- and shallow groundwater geochemistry</i> | Ben Hall <i>Impacts on groundwater flow systems from urban infrastructure</i> |
| 1620-1640 | Adrian McKay <i>Central Condamine</i> | Payton Gardner <i>Separating local</i> | Michael Reynolds <i>Impacts of land use</i> | Travis Cattlin <i>Building a robust</i> | | Damon Howles <i>Groundwater</i> | Damien Finlayson <i>Water table</i> | Kimberley Saflian <i>Alstonville</i> |

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| | <i>Alluvium: the management challenge gets bigger</i> | <i>and regional groundwater discharge to streams using 4He and traditional age tracers of young groundwater</i> | <i>change on water and salinity budgets in the Eastern Dundas Tablelands, Western Victoria</i> | <i>groundwater model for the southern Perth Basin, Western Australia: three dimensional visualisation and modelling of geology using Petrel©</i> | | <i>modelling to assist in the sustainable use of the Swan Coastal Plain aquifers</i> | <i>accessions in the Shepparton irrigation region</i> | <i>reclaimed water scheme; 'protecting natural water assests whilst producing a reliable water source for the future</i> |
| 1640-1700 | Patrick O'Halloran <i>Managing groundwater /surface water interaction using groundwater levels</i> | Dawit Berhane <i>Application of heat as a hydrological tracer for assessment of infiltration and near streambed water exchanges: Focus Catchments, NSW</i> | Fahmida Perveen <i>Catchment - scale water and salinity impacts of changing land use in South-West Victoria</i> | Matthias Raiber <i>Combining three-dimensional geological modelling and multivariate statistical analysis of groundwater chemistry data for a better understanding of groundwater resources in the Wairau Plain, Marlborough District, New Zealand</i> | Brad Wolaver <i>Estimating aquifer depths from hot spring measurements of outflow temperatures and flow rates</i> | Wen Yu <i>Modelling groundwater resources in the Peel-Harvey Coastal Plain, Western Australia</i> | Jillianne Segura <i>Predicting the survival of groundwater dependent vegetation types in Central Australia based on groundwater depth and landscape features</i> | Jeff Morgan <i>Anglesea Borefield Project: groundwater resource development for urban supply. The assessment of potential impacts while addressing data gaps</i> |
| 1700-1720 | Jim Fraser <i>Virtual aquifers and the Middle East</i> | Harald Hofmann <i>Interactions between surface water and groundwater in shallow aquifer systems in the Gippsland basin, South-East Australia</i> | Sarah Hagerty <i>Recharge and discharge mechanisms on granite slopes near Ararat, Western Victoria</i> | Bridgette Lewis <i>GOCAD visualisation of AEM-based datasets</i> | Tim Anderson <i>Finding, developing and sustainably managing potable groundwater supplies in Victoria's Central Highlands region - A consultant, resource manager and urban water supply authority's perspective</i> | Huseyin Bilge <i>Upper Lachlan Valley Groundwater model</i> | Paul Bolger <i>Applying a risk approach to protection of groundwater dependent ecosystems</i> | Graham Hawkes <i>Urban groundwater dewatering in the Botany Sands Aquifer, eastern Sydney, New South Wales, Australia</i> |
| 1900 | Social Event: Conference Dinner Dinner Speaker Address: Presenter and title tbc Great Hall, Parliament House | | | | | | | |

Wednesday 3 November

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| 0800-1700 | Registration Desk open |
| 0830-1030 | Hot Topics Session 3 |
| | WORKSHOP SESSIONS |

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| | HT3A - Challenges and Threats to Groundwater Management Topic: Groundwater Dependent Ecosystems | HT3B - Future Opportunities Topic: Managed Aquifer Recharge | HT3C - Challenges and Threats to Groundwater Management Topic: Climate Change Impacts on Groundwater | HT3D - Water Policy Environment Topic: Water Policy Challenges | WORKSHOP A 3D Visualisation Chair: Bruce Gill Contributors: | WORKSHOP B Groundwater for Decision Makers Chair: NCGRT | BoM visit |
| 0830-0900 | Moya Tomlinson <i>Policy and science needs for the protection of groundwater dependent ecosystems</i> | Peter Dillon <i>Managed aquifer recharge: a novel adaptation to climate change via water recycling</i> | CSIRO- tba | Russell James <i>National Water Initiative policy guidelines for water planning and management</i> | Bryce Kelly, Connected Waters Initiative, UNSW Malcolm Cox, QUT | | |
| 0900-0930 | Ray Froend <i>Environmentally sympathetic groundwater production: is it possible to maintain abstraction in areas with vulnerable phreatophytic vegetation?</i> | Joanne Vanderzalm <i>Water recycling via the aquifer: benefits and hazards</i> | Russell Crosbie <i>Groundwater and climate change - impacts on diffuse recharge</i> | Tony Jakeman <i>Presentation title tbc</i> | Don Cherry and Bruce Gill DPI Victoria David Allen - Groundwater Imaging | | |
| 0930-1000 | Stephen Parsons <i>The emergence of GDE management in Australia</i> | Elizabeth Zajc <i>MAR: great idea, but how do you licence and manage it?</i> | Rick Evans <i>Adaptation options for the impacts of climate change on groundwater</i> | Jennifer McKay <i>The third leg of sustainability - Australian courts and water plans</i> | Lucy Leyland and David Schafer UWA & WA Department of Water | | |
| 1000-10.30 | Kate Dowsley and J. Fawcett <i>Developing a national atlas of groundwater dependent ecosystems</i> | Kim Alexander <i>What do communities know about managed aquifer recharge and storage of stormwater and are they prepared to use water from this source?</i> | Hot Topic Session 3C: Panel Discussion | Jan Gill <i>Managing aquifer interference in NSW</i> | Andrew Harrison, SKM Milos Pelikan, Spatial Vision Tony Pack, Yusen Ley-Cooper, GA | | |
| 1030-1100 | Morning Tea | | | | | | |
| 1100-1230 | Concurrent Session 5 | | | | Workshops (Continued) | | |
| | 5A - Challenges and Threats to Groundwater Management Topic: Groundwater Dependent Ecosystems | 5B - Challenges and Threats to Groundwater Management Topic: Climate Change Impacts on Groundwater | 5C - Challenges and Threats to Groundwater Management Topic: Great Artesian Basin | 5D - Current Water Policy Environment Topic: Water Trading Regimes | WORKSHOP A (continued) | WORKSHOP B (continued) | BoM visit |
| 1100-1130 | Kate Holland <i>Response of riparian vegetation to flooding and groundwater management in a saline, semi-arid environment</i> | Jayath de Silva <i>Climate change impacts on the Gnangara Mound - significant groundwater resource for Perth, Western Australia</i> | Andy Love <i>Toward a new paradigm for the Great Artesian Basin: hydrologic mixing, partitioned sub-basins, and mantle influences on groundwater</i> | Scott Lawson <i>Overcoming impediments to groundwater trading in Australia</i> | | | |

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| 1130-1150 | Caroline Canham <i>Adaptability of phreatophytic plants to groundwater drawdown: will Banksia roots follow a declining water table?</i> | Warrick Dawes <i>Impacts of a changing climate on groundwater interaction with streams in South West Western Australia</i> | Pauline Rousseau-Gueutin <i>Groundwater evaluation and modelling of fossil water</i> | Tim Ford <i>The makings of a success story- groundwater trading in Northern Victoria</i> | | | | | |
| 1150-1210 | Bea Sommer <i>A risk assessment framework for managing hydrological habitat of groundwater dependent vegetation in areas of water resource development</i> | Riasat Ali <i>Groundwater modelling and assessment methods used to evaluate climate change impacts on groundwater resources in south-west Western Australia</i> | Andrew Feitz <i>Hydrogeochemical baseline mapping of the Great Artesian Basin groundwater</i> | Sue Hamilton <i>Addressing the challenges of groundwater trading in New South Wales</i> | | | | | |
| 1210-1230 | Laura Gow <i>Identification and monitoring GDEs using MODIS time series: Hat Head National Park - a case study</i> | Jarrah Muller <i>Modelling cyclone reliant aquifers supporting groundwater dependent ecosystems in the Pilbara; the Lower De Grey River groundwater model</i> | Wendy Welsh <i>Multiple objectives during optimisation for the calibration of a numerical groundwater model: Great Artesian Basin, Australia</i> | | | | | | |
| 1230-1330 | Lunch | | | | | | | | |
| 1330-1530 | Concurrent Session 6 | | | | | | | | |
| | 6A - Challenges and Threats to groundwater management Topic: Surface-Groundwater Interaction | 6B - Challenges and Threats to Groundwater Management Topic: Groundwater Dependent Ecosystems | 6C - Challenges and Threats to groundwater management Topic: Groundwater System Mapping and Characterisation | 6D - Challenges and Threats to groundwater management Topic: Great Artesian Basin | 6E - Capacity Building Topic: Community Involvement, Education and Training | 6F - Current Water Policy Environment Topic: Water allocation planning (reductions) | 6G - Future Opportunities Topic: Managed Aquifer Recharge | WORKSHOP A (continued) | WORKSHOP C Managed Aquifer Recharge Options at Menindee Lakes- tbc |
| 1330-1400 | David Schafer <i>Investigation of groundwater connected pools in Margaret River, Western Australia</i> | Brooke Swaffer <i>Water flux pathways and groundwater use by a mallee eucalypt growing on skeletal soils over a karst aquifer</i> | Rick Evans <i>Remotely sensed ET measurement - is it the future of water management?</i> | Jeff Austin <i>The Great Artesian Basin - a cross sectorial view</i> | Allan Curtis <i>Social research for groundwater management: we know we need it but what is it?</i> | Alex Gardner <i>The legal framework for implementing the NWI principles in New South Wales groundwater management plans</i> | Andrew Kelly <i>Conjunctive use in the Burdekin MAR scheme</i> | | Richard McLoughlin <i>Policy considerations</i> Ken Lawrie <i>AEM mapping, risk assessment and systems approach</i> |
| 1400-1420 | Xiang Cheng <i>The characteristics of groundwater-</i> | Claire Harding <i>Developing risk assessment tools for water</i> | Ian Cartwright <i>Environmental isotopes as indicators of</i> | James Hill <i>The Great Artesian Basin whole-of-basin monitoring</i> | Terry Flynn <i>Southern groundwater futures</i> | Glenn Harrington <i>Integrating science with community and</i> | Rob Virtue <i>Large-scale groundwater extraction and</i> | | Ross S. Brodie <i>Hydrogeochemistry</i> |

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| | <i>stream interactions in the Ovens catchment, North-Eastern Victoria</i> | <i>dependent ecosystems in South Australia</i> | <i>aquifer effectiveness, Murray Basin, Australia</i> | <i>network</i> | | <i>environmental values to determine an alternative and sustainable groundwater allocation framework: Padthaway (SA)</i> | <i>MAR in the Ooloo Dolostone Aquifer, Northern Territory</i> | <p>Declan Page/Joanne Vanderzalm MAR options</p> <p>Peter Dillon Overall MAR viability assessment</p> |
| 1420-1440 | Meg Humphreys <i>A multi-faceted approach to assessing groundwater-surface water interaction for conjunctive management in the Upper Ovens River Valley</i> | Lindsay Bourke <i>Current and a pre-clearing reconstruction of the water and salt balance of a wetland system using Chloride, Bromide, and stable isotopes in the Wheatbelt, Western Australia</i> | Ann Smithson <i>Using good science to inform water management plans - a case study from Central New South Wales</i> | Jennie Fluin <i>The integration of hydrogeological science and management in ensuring water security for the far north of South Australia</i> | Elissa McNamara <i>Translating hydrogeology for the community</i> | Hugh Middlemiss <i>Decision support tool scenario modelling to inform water allocation planning: Padthaway (South Australia)</i> | Carlos Descourvieres <i>Water quality changes during managed aquifer recharge in the Leederville aquifer: from laboratory to field-scale or agricultural water supply</i> | |
| 1440-1500 | Ian Cartwright <i>Using geochemistry to constrain groundwater-surface water interaction in the Ovens Valley, Victoria, Australia</i> | Sepideh Zolfaghar <i>An assessment of the impact of groundwater availability on the ecophysiology of groundwater dependent ecosystems</i> | Lucy Leyland <i>3D characterisation of a heterogeneous sedimentary aquifer, Leederville Aquifer, Perth, Western Australia</i> | Stacey Priestley <i>Travertine deposits as paleo-hydrogeology and neotectonic indicators in the Great Artesian Basin of Australia</i> | Sondoss El Salwah <i>The use of information and communication tools to support public engagement in water resource management</i> | Daniela Conesa <i>Communities involved in natural resources management: a community-based solution to addressing over-allocation in the padthaway area of South Australia</i> | Konrad Miotlinski <i>A coupled groundwater flow, solute and heat transport model to assist the operation of the Aquifer Storage Transfer and Recovery (Salisbury, South Australia)</i> | |
| 1500-1520 | Will Minchin <i>Catchment-scale, spatially-distributed groundwater - surface water modelling to aid conjunctive management of the Ovens catchment, North East Victoria</i> | Mark Mitchell <i>Identification of potential groundwater dependent terrestrial vegetation in New South Wales</i> | Sylvain Massuel <i>Carbonate eolianites of the Perth coastal aquifer: early investigations and hydraulic characterization</i> | Laurence Clarke <i>Environmental determinants of vegetation at spring-fed wetlands in arid central Australia</i> | | | Scott Lawson <i>MAR for agricultural water supply</i> | |
| 1530-1600 | Afternoon Tea | | | | | | | |

| 1600-1740 | Concurrent Session 7 | | | | | | | WORKSHOP A (continued) | WORKSHOP C (continued) |
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| | 7A - Challenges and Threats to groundwater management Topic: Surface-groundwater interaction | 7B - Challenges and Threats to groundwater management Topic: Risks to Groundwater Quality | 7C - Challenges and Threats to groundwater management Topic: Great Artesian Basin | 7D - Challenges and Threats to groundwater management Topic: Groundwater modelling | 7E - Capacity Building Topic: Community Involvement, Education and Training | 7F - Challenges and Threats to groundwater management Topic: Groundwater, irrigation and farming | 7G - Challenges and Threats to groundwater management Topic: Groundwater System Mapping and Characterisation | | |
| 1600-1620 | Bear McPhail <i>River water and groundwater compositions and interaction in the lower Murrumbidgee catchment, New South Wales, Australia</i> | Luke Stacey and James Burkitt <i>Groundwater and salinity management of environmental assets in the Shepparton Irrigation region</i> | Travis Gotch <i>GAB spring classification and risk assessment</i> | Eloise Nation <i>Estimating regional groundwater flow: a simple GIS method</i> | Andrew Todd <i>Community engagement and groundwater investigation in a rural/peri urban basaltic aquifer system, Tamborine Mt, South East Queensland</i> | Evan Christen <i>Salinity stratification in shallow groundwater and it's potential effect on crop water use</i> | Andrew Harrison <i>Hydrogeological mapping of Southern Victoria</i> | | |
| 1620-1640 | Carlos Miraldo <i>Integrating multiple approaches to groundwater recharge estimation for a topographically closed sedimentary aquifer: Uley South Basin, South Australia</i> | Mohammed Alamgir <i>Establishing the baseline groundwater quality for Lower Murray Alluvium</i> | Graham Green <i>Evaluating risks to Great Artesian Basin Springs</i> | Yueqing Xie <i>A stochastic analysis of density-driven solute transport in homogeneous porous media</i> | Ian White <i>Collaborating with groundwater users to manage abstraction cutbacks in the Condamine</i> | Leif Wolf <i>Implications of supplying high purity recycled water to connected surface-groundwater systems in agricultural area</i> | Simon Fell-Smith <i>Koolpinyah dolomite aquifer characteristics project</i> | | |
| 1640-1700 | Brooke Broadstock <i>Managing the high impact of groundwater pumping on stream flow in highly connected systems - a case study in the Peel Valley, New South Wales,</i> | Fiona Glover <i>Inland acid sulfate soil: a study of Bottle Bend Lagoon and Tareena Billabong</i> | Paul Shand <i>Acid sulfate soils (Ass) associated with carbonate mound springs in the Great Artesian Basin: implications for groundwater resource management and mound evolution</i> | Juliette Woods <i>Modelling the impact of clays in the unsaturated zone on groundwater recharge</i> | Andrew Ross <i>Water connecting, people adapting; the influence of institutions on integrated surface water and groundwater management</i> | Liz Webb <i>A review of the significance of stock and domestic groundwater use</i> | Attila Kovacs <i>A new method for analytical baseflow separation</i> | | |

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| | <i>Australia</i> | | | | | | | | |
| 1700-1720 | Brian Smerdon <i>Linking the Ooloo Dolostone Aquifer and Daly River, Northern Territory: using tracers and flow models to investigate connectivity and intra-wet-season storage</i> | Bishnu Gautam <i>Assessing the hydrogeological impact of urbanisation and land use change</i> | Davina White and Megan Lewis <i>Developing methods to monitor GAB mound spring flow rates using hyperspectral remote sensing</i> | Dylan Irvine <i>Control of clogging layer heterogeneity on disconnected losing streams</i> | Chris McAuley <i>Getting in on the 'ground' level - groundwater education for secondary students</i> | Mel White <i>A trial of three floodplain groundwater management techniques to improve vegetation condition</i> | Genevieve Larsen <i>Cluster analysis to support graphical methods in the characterisation of chemically similar ground and surface waters in coastal catchments, sub-tropical Fraser Coast, Queensland</i> | | |
| 1720-1740 | Eddie Banks <i>Assessing surface water groundwater connectivity - from the headwaters to the sea, Kangaroo Island, South Australia</i> | Xuyan Wang <i>Use of fuzzy reliability index for quantification of uncertainties in the groundwater impact assessment for a mine residue storage facility</i> | Meghan Dailey <i>Geophysical evidence for groundwater mixing at Freeling Springs, South Australia</i> | Huade Guan <i>Estimating groundwater recharge in the coastal areas with vegetation changes</i> | Peter Sinclair <i>Capacity in paradise</i> | Imogen Fullager <i>Groundwater demand management: finding growth beyond water limits</i> | Richard Green <i>Assessment of multi-layered sandstone aquifers in the Sydney Basin, Blue Mountains</i> | | |
| 1830 | Social Event Wednesday BBQ Dinner sponsored by Australian National University Fellows Garden, University House, Australian National University <i>* Please book your attendance via the registration form</i> | | | | | | | | |

Thursday 4 November

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| 0800-1600 | Registration Desk open | | |
| 0830-0915 | Plenary Address: Craig Simmons <i>Capacity Building</i> | | |
| 0915-1000 | Plenary Address: Rob Vertessy <i>Information Requirements</i> | | |
| 1000-1030 | Morning Tea | | |
| 1030 | Hot Topics Session 4 | | |
| | HT4A - Capacity Building Sub-theme: Information Requirements | HT4B - Future Opportunities and Challenges Sub-theme: Northern Australia Groundwater | HT4C - Challenges and Threats to Groundwater Management |

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| | | <i>Resources and Development</i> | | | Sub-theme: Groundwater and Mining | | | |
| 1030-1100 | Greg Hoxley <i>Towards a national groundwater information system</i> | Richard Cresswell <i>Northern Australia's water resources: the vitality of groundwater</i> | | | Chris Moran <i>Groundwater and mining</i> | | | |
| 1100-1130 | James Devonshire <i>Groundwater data for the 'Australian Hydrological Geospatial Fabric' (GEOFABRIC)</i> | Richard George <i>The Ord Stage 2 development</i> | | | Gabor Bekesil <i>The sustainability of the South-West Great Artesian Basin - lessons from 30 years of investigations, monitoring, compliance and modelling</i> | | | |
| 1130-1200 | Andrew Harrison <i>Development and use of an interim national aquifer framework for the Australian geospatial fabric</i> | Ian Lancaster/Des Yin-Foo <i>Northern Territory groundwater resources</i> | | | Darryl Abbott <i>The Pilbara Water in mining guideline- integrating water policy with industry best practice and environmental approval processes</i> | | | |
| 1200-1230 | Greg Holland <i>Groundwater metering and licensing- a national review</i> | <i>Hot Topic Session 4B: Panel Discussion</i> | | | Paul Howe <i>A risk-based approach to assessing local and cumulative effects of mining operations on groundwater systems</i> | | | |
| 1230-1330 | Lunch | | | | | | | |
| 1330-1520 | Concurrent Session 8 | | | | | | | |
| | 8A - Capacity Building Topic: Education, Training, Employment and Community Engagement | 8B - Challenges and Threats to groundwater management Topic: Surface-groundwater interaction | 8C - Challenges and Threats to groundwater management Topic: Great Artesian Basin | 8D - Challenges and Threats to groundwater management Topic: Groundwater modelling | 8E - Future Opportunities and Challenges Topic: Northern Australia Groundwater Resources and Development | 8F - Challenges and Threats to Groundwater Management Topic: Groundwater and Mining | 8G - Challenges and Threats to groundwater management Topic: Groundwater System Mapping and Characterisation | 8H - Future Opportunities and Challenges Topic: Frontier Science and Technologies |
| 1330-1350 | Richard McLoughlin <i>National survey of water industry services sector</i> | Hugh Middlemiss <i>Advances in groundwater modelling of floodplain inundation recharge and evapo-transpiration, with application of AEM data</i> | Mark Keppel <i>The hydrochemistry of selected mound spring environments, Lake Eyre South Region, Great Artesian Basin, South Australia</i> | Champika Wethasinghe <i>Groundwater recharge: comparison of outputs</i> | | Alan Puhlovich <i>Evolution of conceptual hydrogeological models, Ranger Uranium Mine, Northern Territory</i> | Igor Zektser <i>Experience of regional groundwater resources assessment and mapping</i> | Chris Barber <i>Treatment and use of brackish and saline groundwater resources: options and opportunities in regions with climate variability and freshwater shortages</i> |
| 1350-1410 | Imogen Fullagar <i>Groundwater: more than a technical topic</i> | Glenn Passfield <i>Do groundwater managers really need to consider floodplain processes in the lower Murray-Darling Basin</i> | Glen Harrington <i>Measuring millimetre per year discharge fluxes in the two million square kilometre Great Artesian Basin</i> | Damian Finlayson <i>Monte Carlo probability technique applied to groundwater resource assessments and management</i> | Doug Brown <i>The Cloudbreak Water Management Scheme (Stage 1 of the Papa Warringka)</i> | Katarina David <i>Mine water sharing - a way forward</i> | Graham Green <i>Mountain front recharge and groundwater flow pathways in fractured rock systems: implications for</i> | Wendy Timms <i>Centrifuge permeameter testing and field geophysics for characterising aquitards and leakage paths</i> |

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| | | | | | | | <i>conjunctive management of surface and groundwater resources</i> | |
| 1410-1430 | Jane Coram <i>Integrating groundwater science and policy: bridging the chasm</i> | Robert Williams <i>Mallee Cliffs Salt interception scheme - a demonstration of the impact of groundwater pumping on a regulated river</i> | Yuot Alaak <i>Remotely sensed characterisation of diffuse discharge zones and evaporite minerals associated with mound springs in the Great Artesian Basin</i> | Paul Raper <i>Modelling the impacts of a 1,000 ha plantation on groundwater overlying a palaeochannel aquifer in South Western Australia</i> | Ursula Zaar <i>The Gulf water study - mapping work</i> | Andrea Madden <i>The Scarborough Sandstone and its connectivity with longwall mining in a water supply catchment</i> | Adrian Costar <i>Hydrogeological mapping of fracture orientation and groundwater flow in the Eastern Mount Lofty Ranges, South Australia</i> | William Milne-Home <i>An efficient piston pump for low-yield boreholes</i> |
| 1430-1450 | <i>Discussion</i> | Juliette Woods <i>The impact of flooding on surface and groundwater interaction in the River Murray at Lock 2 and Murtho</i> | M.A Rein Habermehl <i>Recharge to the Great Artesian Basin in New South Wales</i> | | Rebecca Doble <i>Sampling for stream-aquifer connections by helicopter in a remote, inaccessible area</i> | Sunil Varma <i>Hydrodynamics of the Gippsland Basin</i> | Dragana Zulfic <i>Prediction of catchment scale processes in fractured rock aquifers, Mount Lofty Ranges, South Australia</i> | Hilary Nath <i>Electrochemical decontamination of iron and manganese from groundwater</i> |
| 1450-1520 | Afternoon Tea | | | | | | | |
| 1520-1545 | Integrating the Themes and summation: Don Blackmore and Matt Kendall | | | | | | | |
| 1545-1600 | Prizes and Farewell: Ken Lawrie | | | | | | | |
| 1600 | Conference Close | | | | | | | |

Program Disclaimer: The speakers, topics and times are correct at the time of publishing, however are subject to change.