

PROGRAMME

SATURDAY, 17th September 2011

08:30 – 15:00	Workshop: Water Use License Applications (includes lunch) Venue: Crystal Room, 1 st floor
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SUNDAY, 18th September

09:00	IAH Council Meeting (all-day) Venue: Crystal Room, 1 st floor	Exhibitors : all day set-up Venue: Exhibition Hall
12:30 - ± 15:30	Workshop: Managing Artificial Recharge (arrive in time for lunch at 12:30) Venue: Emerald Auditorium	
15:00 – 18:00	EARLY CONFERENCE REGISTRATION : CSIR Venue : Foyer	
18:00 – 19:30	WELCOME RECEPTION and OPENING OF EXHIBITION: CSIR Venue: Exhibition Hall	

Day 1 : MONDAY, 19th September

08:00 – 08:30	REGISTRATION
08:15	<i>Briefing session for authors and chairmen of the day</i>
PLENARY	SESSION 1 : OPENING : Venue : Diamond Auditorium Chair: Dr Shafick Adams, Conference Chairman / Water Research Commission
08:30 – 08:40	WELCOME : GWD – Dr Shafick Adams, National Chairman of the Ground Water Division (GWD)
08:40 – 08:45	WELCOME : IAH - Dr Willi Struckmeier, President, International Association of Hydrology (IAH)
08:45 – 08:50	Greetings from UNESCO-IHP - Salvatore D'Angelo. Section Groundwater Systems, International Hydrological Programme, UNESCO- Water Division
08:50 – 09:20	OPENING ADDRESS – Mrs Bomo Edna Edith Molewa, Minister of Water Affairs
09:20 – 09:50	KEYNOTE : Recharge of soil water into the groundwater store in South Africa under current and projected future climatic conditions - Prof Roland Schulze , School of Bioresources Engineering and Environmental Hydrology, University of KwaZulu-Natal (South Africa)
09:50 – 10:20	KEYNOTE : Worldwide mapping of the regional groundwater settings – Dr Willi Struckmeier , President of the IAH (Germany)
10:20 : 10:50	TEA - and VIEWING OF EXHIBITION

Parallel sessions	SESSION 2 : Climate change and drought Chair: Chris Moseki, Water Research Commission Venue: Diamond Auditorium	SESSION 3 : Reserve and licensing Chair: Ms Christine Colvin, World Wildlife Fund Venue: Ruby Auditorium	SESSION 4 : Water quality – changing trends Chair: Prof Antonio Chambel, IAH Venue: Emerald Auditorium
10:50 – 11:10	Climate change : impacts on South African groundwater resources – Dr Ingrid Dennis, University of the Free State (South Africa) and S R Dennis	Unpacking the groundwater reserve – Andrew Mavurayi, Waters Without Frontiers Consulting (South Africa)	Water quality deterioration due to a drop in regional water level , Leipoldville case study - Jaco Nel, UNESCO Chair Centre, University of the Western Cape (South Africa, Y Xu and O Batelaan
11:10 - 11:30	Experiences from developing emergency groundwater supplies for the drought-impacted southern Cape region – Roger Parsons, Parsons & Associates Specialist Groundwater Consultants cc (South Africa)	Groundwater reserve determination for a confined, artesian aquifer – an oxymoron? – Dr Kornelius Riemann, Umvoto Africa (Pty) Ltd (South Africa)	Essential elements of conceptual models for contaminated sites – Willem van Biljon, Geo Pollution Technologies (South Africa)
11:30 – 11:50	Use of statistical analysis to predict the impact of future climate change on groundwater resources based on climatic and physical properties from aquifers in Cross River State, southeastern Nigeria – Prof Aniekian Edet, University of Calabar (Nigeria), A J Ukpong and A S Ekwere	Classification of surface-groundwater interaction of the Mokolo and Lephalala River systems in the Limpopo WMA – Theo Rossouw, Metago Water Geosciences Consulting (South Africa, M Holland and N Motebe	Development of a conceptual model to assist with closure of a contaminated hydrogeologically complex site – Dr Meris Mills, Environmental Resources Management (South Africa), J van Gool, J Kotze and R Gebrekristos
11:50 – 12:10	Groundwater-surface water interactions along Latonyanda River and contributions to water resources availability during drought – Prof John Ogony Odiyo, University of Venda (South Africa) and R Makungo	Decision making process based on three groundwater reserve studies towards management and protection of groundwater resources – Ms Nancy Motebe, Department of Water (South Africa) and J J P Vivier	Eye spy: the importance of groundwater monitoring – C L Terrell, Ms Sarah Jane Skinner, SRK Consulting (South Africa) and J Burke
12:10 – 12:30	The 1974-76 rainfall seasons and the prolonged impact on groundwater resources of the Northern Cape – Reinhard Meyer (South Africa) and E van Wyk	Evaluation of groundwater abstraction license application: a DWA perspective – Dr Eddie van Wyk, Department of Water Affairs (South Africa) and A U Okonkwo	Groundwater quality in The Netherlands – Dr Esther Wattel-Koekkoek, RIVM National Institute for Public health and the Environment (The Netherlands), L J M Boumans, M E van Vliet and A Vrijhoef
12:30 – 13:30	LUNCH - and VIEWING OF EXHIBITION		
Parallel sessions	SESSION 5 : Merging science and policy Chair: Dr Kevin Pietersen, SLR Consulting Venue: Diamond Auditorium	SESSION 6 : Getting the message across Chair: Dr Nick Robins, British Geological Survey Venue: Ruby Auditorium	SESSION 7 : Case studies Chair: Matthys Dippenaar, University of Pretoria Venue: Emerald Auditorium
13:30 – 13:50	Groundwater management framework for municipalities – Dr Kornelius Riemann, Umvoto Africa (Pty) Ltd (South Africa)	The SADC Groundwater Data and Information Archive : knowledge sharing and co-operation – Jeffrey Davies, British Geological Survey (UK), J Cobbing, J C Talbot and N S Robins	Groundwater resource assessment for the Greater Mamusa Local Municipality – North-West Province, South Africa – Collen Monokofala, Golder Associates Africa (Pty) Ltd and F E Wiegmans
13:50 – 14:10	Towards the determination of the socio-economic value of groundwater: Franschhoek case study – Darian Pearce, University of the Western Cape (South Africa), Y Xu and E Makaudze	Community-groundwater compatibility assessments : an approach towards sustainable groundwater development – Jan Myburgh, AGES Eastern Cape (Pty) Ltd (South Africa) and A Hugo	Groundwater management in the Molopo-Nossob Basin – Dr Leif Carlsson, Geotechnical Consulting Services (Botswana), R Bejugam and G Tredoux
14:10 – 14:30	Valuing groundwater: a practical approach for integrating groundwater economic values into decision making in the SADC – Dr Camille Bann, eftec Associate (UK) and Simon Wood	Groundwater recharge: accurately representing evapotranspiration – Richard Bagan, CSIR (South Africa), N Z Jovanovic, F May and S Dzikiiti	Deep exploration drilling, groundwater resource development and aquifer characterisation in Middelburg, Eastern Cape – Reuben Grobler, AGES (Pty) Ltd (South Africa), J A Myburgh and J J P Vivier
14:30 – 14:50	Conceptual approach to mainstreaming risk management into water services – Ms Rowena Hay, Umvoto Africa (Pty) Ltd (South Africa), D Cousins, J Lijnes and P Hay; presented by A Mlisa	Between surface water and groundwater : a look at the pathway in between – Matthys Dippenaar, University of Pretoria (South Africa)	Characterisation, pumping and tracer tests in abnormal high yield boreholes drilled in the Balfour formation of the Beaufort group in the Karoo Supergroup in Eastern Cape, South Africa – Liuji Yu, University of Fort Hare(South Africa), B Zhao, G Steyl, K Madi and G van Tonder
14:50 – 15:20	Tea		

15:20 – 15:40	Water balance approach for assessing potential for small-scale groundwater irrigation in sub-Saharan Africa – Dr Paul Pavelic, International Water Management Institute (IWMI) (India), V Smakhtin, G Favreau and K G Villholth	The challenges of municipal groundwater supply from private land – Ms Helen Seyler, Umvoto Africa (Pty) Ltd (South Africa), A Mlisa, K Riemann and E R Hay	A forced-gradient tracer test on the Hansrivier Dyke, Beaufort West, South Africa – Yazeed van Wyk, Council for Geoscience (South Africa) and K Witthueser
15:40 – 16:00	Groundwater extractions in Flanders, an enforcement review (2005 – 2009) – Jeroen November, Flemish Public Administration (Belgium), R Baert and M Blondeel	A critical comparison of South African background soil trace element concentrations and the proposed framework for the management of contaminated land screening values – Carl Steyn, Golder Associates Africa (Pty) Ltd (South Africa) and E Herselman	A review of our understanding of the West Coast aquifers 25 years after the groundbreaking investigations – Ms Nicolette Vermaak, Department of Water Affairs (South Africa), P L Havenga and H de Haast
16:00 – 16:20	Complexities of developing a groundwater modelling system for a multidisciplinary application – Mark Schapers, Terratest (Pty) Ltd (South Africa) and I Dennis	Review of the Waste Act Norms and Standards using actual samples from fuel installation in South Africa – Willem van Biljon, Geo Pollution Technologies (South Africa)	Characterisation of the groundwater regime in the immediate vicinity of the S.A.G.O.S – Gaathier Mahed, Africa Earth Observatory Network (South Africa), M de Wit, A Gunter and T Blume
16:20 – 17:30	IAH AGM Venue: Ruby or Emerald Auditorium		
16:20 – 17:30	MEETING of the IAH EARLY CAREER HYDROGEOLOGISTS Venue: On the outside deck (lower floor)		
17:00 – 19:30	DRINKS ON THE DECK – Cash bar		

Day 2 : TUESDAY, 20TH September 2011

08:15 - 08:30	<i>Briefing session for authors and chairmen of the day</i>		
PLENARY	SESSION 8 : Venue : Diamond Auditorium Chair: Dr Kornelius Riemann, Umvoto Africa		
08:30 – 09:00	KEYNOTE : Water scarcity and water security : the role of groundwater - John Chilton, International Association of Hydrogeologists (UK)		
09:00 – 09:30	KEYNOTE : Managed groundwater development for water-supply security in Sub-Saharan Africa: making sustainable investments – Prof Dr Stephen Foster, World Bank – Groundwater Management Advisory Team [GW-MATE] (UK), A Tuinhof and F van Steenberg		
09:30 – 10:00	KEYNOTE: Multimodel Bayesian analysis of data-worth applied to unsaturated fractured tuffs – M. Ye, D.Lu, Prof Shlomo Neuman, University of Arizona (USA) and L Xue		
10:00 – 10:30	TEA - and VIEWING OF EXHIBITION		
Parallel sessions	SESSION 9 : Dealing with uncertainty Chair: Prof Kai Witthueser, SLR Consulting Venue: Diamond Auditorium	SESSION 10 : Water and energy Chair: Andrew Johnstone, GCS (Pty) Ltd Venue: Ruby Auditorium	SESSION 11 : Water quality : acid mine drainage Chair: Prof Antonio Chambel, IAH Venue: Emerald Auditorium
10:30 – 10:50	When is groundwater data enough for decision-making? - Koos Vivier, AGES Consulting (South Africa) and I J van der Walt	Geothermal energy: the alternative source for cooling and heating of buildings in Southern Africa – Derek Whitfield, Environmental Drilling & Remediation Services (South Africa)	INVITED : ‘Acid mine drainage’: what is it, and what do we know about it? - Dr Jo Burgess, Water Research Commission (South Africa)
10:50 – 11:10	Uncertainty in DWA groundwater information products – Ernst Bertram, Department of Water Affairs (South Africa)	Hydrochemical and environmental isotope based study of the thermal springs of KwaZulu-Natal, South Africa - Dr Molla Demlie, University of KwaZulu-Natal (South Africa) and M K Watkeys	Managing acid rock drainage at the Anglogold Ashanti, Vaal River operations, South Africa – Gabriel van Dyk, AngloGold Ashanti (South Africa) , J D Malan and P Labushagne
11:10 – 11:30	The impact of climate transitions on the radionuclide transport through a sedimentary aquifer – Dr Judith Flügge, Gesellschaft für Anlagen- und Reaktorsicherheit (GRS) mbH (Germany), U Noseck, A Schneider and M Stockmann	The chemistry of Table Mountain Group thermal spring water constrained by aquifer mineral composition – Humberto Saeze, University of the Western Cape (South Africa), Y Xu and B Verhagen	The genetic relationship of coal mine water quality and its source rocks in southern Africa : a summary – Prof Baojin Zhao, University of Fort Hare (South Africa), N Malaza, L Ncube and N Tuntuma
11:30 – 11:50	Is the Southern African Archean Basement Aquifer up to the job? – Jeffrey Davies, British Geological Survey (UK), J L Farr and N S	Can it be fracking sustainable? – Ms Carin Bosman, CBSS (South Africa)	Groundwater impact assessment associated with iron ore mining operations on the regional aquifer associated by means of

	Robins		modelling : a case study – Ms Claudia Brites, GCS (South Africa) and K Troskie
11:50 – 12:10	Environmental isotope interpretation for the Langebaan Road Aquifer System – Dr Gideon Tredoux, Consultant (South Africa), A S Talma, J M C Weaver and I A B van der Westhuizen	Shale gas exploration in South Africa and possible future groundwater quantity and quality issues – Dylan Blake, Umvoto Africa (Pty) Ltd (South Africa) and C J H Hartnady	The impact of anthropogenic activities on the Zuurbekom Wells, current status and trends in water quality – Dr Esper Jacobeth Ncube, Rand Water (South Africa)
12:10 – 12:30	Learning through measurement : some counter-intuitive observations while developing emergency groundwater supplies for the drought-impacted Southern Cape region – Roger Parsons, Parsons & Associates Specialist Groundwater Consultants cc (South Africa)	DISCUSSION	DISCUSSION
12:30 – 13:30	LUNCH - and VIEWING OF EXHIBITION		
	IAH MEETING OF NATIONAL CHAPTERS Venue: Crystal Room (1st floor) - please collect lunch and take it to the Crystal Room		
Parallel sessions	SESSION 12 : Dealing with uncertainty: modelling Chair: Prof Shlomo Neuman, University of Arizona Venue: Diamond Auditorium	SESSION 13 : Mapping and data Chair: Dr Martin Holland, SLR Consulting Venue: Ruby Auditorium	SESSION 14 : IAH Side Meetings Venue: Emerald Auditorium
13:30 – 13:50	If all models are wrong, how can it be useful for decision-making? – Koos Vivier, AGES Consulting (Pty) Ltd (South Africa) and I J van der Walt	Stochastic generation of discrete fracture networks – Dr Kai Witthueser, Metago Water Geosciences (South Africa) and C M Koenig	GLOBAL ENVIRONMENT FACILITY (GEF) PROJECT
13:50 – 14:10	Using numerical modelling to cope with uncertainty: examples from various numerical models in the Western Cape – Ms Helen Seyler, Umvoto Africa (Pty) Ltd and E R Hay	Exploratory drilling results from the TMG aquifers, Southwestern Cape, South Africa – Dylan Blake, Umvoto Africa (Pty) Ltd (South Africa), C J H Hartnady and K Riemann	
14:10 – 14:30	Resolving uncertainties in surface and groundwater interaction modelling : a case study from South Africa using the Pitman Model – Ms Jane Tanner, Rhodes University (South Africa) and D A Hughes	GIMMS: a GIS-tool for integrated mapping and management of groundwater drought vulnerability and insecurity in the SADC region – Dr Karen G Villholth, National Geological Survey of Denmark and Greenland [GEUS] (Denmark), C Tottrup, M Stendel, A Maherry, R Meissner and C Colvin	
14:30 – 14:50	Analytical solutions based on strong conceptual models – Dr Robel Gebrekristos, Environmental Resources Management (South Africa), P Cheshire and J Kotze	Ground-based time-lapse gravity data used to calibrate a river bank storage model in the Okavango Delta, Botswana – Dr Lars Christiansen, COWI (Denmark), P J Binning, O B Andersen, D Rosbjerg and P Bauer-Gottwein	
14:50 – 15:20	TEA - and VIEWING OF EXHIBITION		
15:20 – 15:40	Assessing the risk of saline intrusion with density dependent flow modelling for the fractured Peninsula Aquifer in Hermanus, South Africa - Len von Scherenberg, Umvoto Africa (Pty) Ltd (South Africa) and H G P Seyler	Integrated interpretation of hydrogeophysical survey data to support detailed groundwater mapping: Eastern Denmark case study – Kerim Martinez, COWI (Denmark), O F Nielsen and J A Mendoza	IAH COMMISSION: MANAGED AQUIFER RECHARGE
15:40 – 16:00	Groundwater flow model “Saarland” - a regional groundwater flow model as main planning and decision tool for water administration – Thomas Walter, Landesamt für Umwelt- und Arbeitsschutz (Germany)	Hydrogeological study for sustainable water resources exploitation in the Ibo Island, Mozambique – C Mecerreyes, E Vilanova, Ms Eva Docampo and J Molinero, Amphos 21 Consulting SL (Spain).	
16:00 – 16:20	Numerical modelling of flooding of deep mines – Prof Christoph König, Delta H Ingenieurgesellschaft mbH (Germany) and K T Witthueser	DISCUSSION	



16:20 18:45	Optional visit to FREEDOM PARK (all participants to go in the buses, no private transport. Buses will drop everyone back at the CSIR in time for the dinner) CONFERENCE DINNER (on the outside deck at the CSIR – or Amber Dining Room in case of inclement weather)
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Day 3: WEDNESDAY, 21st September 2011

08:15 - 08:30	<i>Briefing session for authors and chairmen of the day</i>		
Parallel sessions	SESSION 15 : Exploration and water supply Chair: Jude Cobbing, SLR Consulting Venue: Diamond Auditorium	SESSION 16 : Merging science and policy Chair: Ms Nancy Motebe, Dept of Water Affairs Venue: Ruby Auditorium	SESSION 17 : Case Studies Chair: Fortress Netili, Council for Geoscience Venue: Emerald Auditorium
08:30 – 08:50	The delineation of high-yielding wellfield areas in Karoo aquifers as future water supply options to local authorities – Ms Katie Baker, Groundwater Africa (South Africa) and E C Murray	Ensuring water supply for all towns and villages in South Africa – Ms Rowena Hay, Umvoto Africa (Pty) Ltd (South Africa), K Riemann, G van Zyl and I Thompson	Predictability of groundwater impact on coastal water quality of Saemangeum tidal lake in Korea– Prof Chang S Kim, Korea Ocean R & D Institute (South Korea), H S Lim, J Kim, Y H Jeong and J-S Yang
08:50 – 09:10	Can groundwater be successfully implemented as a bulk water resource within rural Limpopo, South Africa? – Willem du Toit, Department of Water Affairs (South Africa), M Holland, R Weidemann and F Botha	Towards transboundary aquifer management in southern Africa – Gereon Hunger, Department of Water Affairs (South Africa), G Christelis, O Mulele and E Braune	Hydrogeochemistry of hard rock aquifers – Irish case study – Ms Katarina Pilatova, Queen’s University Belfast (Northern Ireland) , U Ofterdinger, J Nitsche, R Flynn, R Cassidy, J C Comte, A Orr and M Archibold
09:10 – 09:30	Hydrogeological characterization of crystalline basement aquifers within the Limpopo Province, South Africa – Martin Holland, Metago Water Geosciences (Pty) Ltd (South Africa) and K Witthueser	Identification and management of strategic groundwater bodies for emergency situations in Bratislava District, Slovak Republic – Dr Jurai Michalko, State Geological Institute of Dionyz Stur (Slovakia), J Kordik, D Bodis, P Malik, R Cernak, F Bottlik, P Veis and Z Grolmusova	Groundwater differences between Mpumalanga Coalfield and Waterberg Coalfield – Dr Danie Vermeulen, University of the Free State (South Africa)
09:30 – 09:50	Looking for the last drop – Ms Sarah Jane Skinner, SRK Consulting (Pty) Ltd (South Africa)	Guidelines for Integrated Catchment Monitoring : ICM mind map development and demonstration – Dr Nebo Jovanovic, CSIR (South Africa), S Israel, C Petersen, R D H Bagan, G Tredoux, W P de Clercq, R Rose, J Conrad and M Demlie	Sustainable groundwater supply to the mining industry by looking at several case studies – Pieter Labuschagne, GCS (Pty) Ltd (South Africa), A C Johnstone and K Troskie
09:50 – 10:10	Operationalization of remote sensing and GIS for groundwater exploration and management : few examples from Haryana State, India – Dr Bhagwan Singh Chaudhary, Kurukshetra University (India)	Characteristics of local rainwater-groundwater interactions in semi-arid hard rock terrains – Dr Eddie van Wyk, Department of Water Affairs (South Africa)	Langebaan Road Aquifer System : Pilot scale artificial groundwater recharge – Dr Gideon Tredoux, CSIR (South Africa), J F P Engelbrecht, L Soltau and E van Wyk
10:10 – 10:40	TEA - and VIEWING OF EXHIBITION		
Parallel sessions	SESSION 18 : Groundwater & the environment Chair: Prof Ingrid Dennis, North West University Venue: Diamond Auditorium	SESSION 19 : Water quality – changing trends Chair: Prof Gideon Steyn, University of the Free State Venue: Ruby Auditorium	SESSION 20 : Case studies Chair: Yazeed van Wyk, University of Pretoria Venue: Emerald Auditorium
10:40 – 11:00	Groundwater interaction between a deep coal mine and a deeper lying gold mine – Morne Burger, Geo Pollution Technologies (South Africa) and P D Vermeulen	<i>In situ</i> nitrate removal from groundwater using freely available carbon material at an industrially polluted site – Ms Sumaya Israel, CSIR (South Africa), A Rosenov, G Tredoux and N Jovanovic	Determining the impact of the All American Canal concrete lining in United States, on the hydrological regime of Andrade Mesa Wetlands, Mexico – Prof Mauricio Peregrina-Llanes, Universidad Autonoma de Baja California (Mexico), A Calvo-Fonseca, J Ramirez-Hernandez and O Hinojosa-Huerta
11:00 – 11:20	Time series analysis using normalized differential vegetation index for monitoring groundwater dependent ecosystems in the Gateway Wellfield, Hermanus – Nisbert Chimboza, Umvoto Africa (Pty) Ltd (South Africa) and A Mlisa	A model of long-term catchment-scale nitrate transport in a UK chalk catchment - Dr Nicholas Howden, University of Bristol (UK), T P Burt, F Worrall and M J Whelan	Evaluation of radon reduction rate in groundwater from small-scale water supply system – Dr Byong-Wook Cho, Korea Institute of Geology & Mineral Resources [KIGAM]. (Korea), M S Kim, Y J Lee, U Yun, B D Lee and S H Moon

11:20 – 11:40	Impact of the Berg River Dam on groundwater conditions in the Upper Berg River catchment – Ms Nicolette Vermaak, Department of Water Affairs (South Africa) and H de Haast	Determination of anthropogenic influence from non-parametric statistics and spatial analysis of regional soil data and surface water contaminant transport hydrogeochemical modelling: implications for groundwater contamination – Okiep Copper District, Namaqualand, South Africa – Robert Hansen, AGES Consulting (South Africa), A N Roychoudhury and C Clarke	2-D electrical resistivity tomography to decipher groundwater resources in Deccan Traps Terrain, Nagpur District, India – Dr Shivendra Nath Rai, National Geophysical Research Institute (India), Y Ratna Kumari, S. Thiagarajan and D Kumar
11:40 – 12:00	Stable isotopes of rain, surface water and groundwater in the Kogelberg – Dale Barrow, GEOSS (Pty) Ltd (South Africa) and R E Diamond	Groundwater quality as variable in the time and space - Ms Branka Bracic Zeleznik, Public Water Utility (Slovenia), B Cencur Curk and P Souvent	Nanomaterials for water purification : case study – Dr Perumalsamy Navaraj , Yadava College (India)
12:00 – 12:20	Sand, salt and water : groundwater recharge rates and histories in dunes above the Stampriet Aquifer – Dr Abi Stone, University of Oxford (UK) , W M Edmunds and D S G Thomas	The origin of groundwater salinity in the Sandspruit catchment, Berg River Basin (South Africa) – Dr Molla Demlie, University of KwaZulu-Natal (South Africa), N Jovanovich and S Naicker	Using electrical resistivity methods in monitoring brine infiltration at a dry coal ash dump – Innocent Muchingami, University of the Western Cape (South Africa), J Nel and G Steyl
12:20 – 13:20	LUNCH - and VIEWING OF EXHIBITION		
Plenary	SESSION 21 : CLOSING - Venue: Diamond Auditorium Chair: Dr Willi Struckmeier, President IAH		
13:20 – 13:50	KEYNOTE : Groundwater governance in South Africa: state of affairs - Dr Kevin Pietersen , SLR Metago (South Africa), H E Beekman, M Holland and S Adams		
13:50 – 14:20	KEYNOTE : Water resources issues in the United States and the changing focus of groundwater – Andrew Stone, American Ground Water Trust (USA)		
14:20 – 14:50	KEYNOTE: Why is groundwater failing South Africa’s rural poor? Dr Christine Colvin, World Wildlife Fund (South Africa), K Wall, S Clarke and K Nortje		
14:50 – 15:00	Summary of conference themes, discussion and results		
15:00 – 15:10	Closing remarks : Dr Shafick Adams, Conference Chairman		
15:10 –	TEA		
15:10 – 17:30	GWD AGM and MEETING OF THE SOUTH AFRICAN IAH NATIONAL CHAPTER - Venue: Emerald Auditorium		