



ERSA

Environmental Risk Science and Audit

Annual Report 2011

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Chair's Foreword

Welcome to the inaugural Annual Report of Environment Risk Science Audit (ERSA) Pty Ltd.

ERSA (formerly the Risk Management Group of the Institute of Development, IID) has been formed to address the increasing need for a new approach to the management of natural resources resulting from population pressures, climate change, increased risks associated with development of marginal and degraded lands and the need for their rehabilitation. ERSA seeks to combine the risk management group's extensive skills and experience in applying risk management to the natural environment with the audit experience gained through undertaking audits of Catchment Action Plans across NSW.

I am pleased to have seen the strengths developed by the risk management group of IID successfully carried over into ERSA. These strengths include a commitment to excellence, the ability to assign multi-skilled teams to address the key issues, and a keen focus on following projects and ideas through from inception to completion with the objective of making a real difference.

Over the past year, I have seen the further strengthening of these skills and experience with the addition of more members to the team. These members bring with them extensive experience in natural resource management (NRM), audit and corporate governance, and complement the risk management skills of the group.

This year, we have also continued to develop and maintain the strong and effective working relationships we have with our clients and leading public sector and academic institutions that work in disaster risk management and NRM auditing.

This Annual Report records some of our achievements for 2010-2011, of which our team can be justly proud. Our team delivered quality NRM audits, improved the adaptive management processes of Catchment Management Authorities, was awarded an Australian first risk management study and continued to develop. I look forward to 2011-2012 as our expert team collectively drives our company forward in to the future.



WAYNE HASLAM, CHAIRMAN

About ERSA

Environmental Risk Science and Audit (ERSA) Pty Ltd provides risk science and audit advisory services across a broad range of sectors, focusing on natural resources management (NRM) and the mitigation of the impact of natural disasters.

ERSA team members are like-minded senior practitioners, researchers and academics with varied skills and experience in environmental science, risk and disaster management, NRM and auditing, both throughout Australia and overseas.

Our core team of highly skilled professionals is able to provide expert risk assessment and undertake audits in all natural resource areas. We also have the spatial information, land and environmental management, land use planning and project management expertise needed to ensure a holistic approach to risk management and auditing.

By drawing on our very significant base of skills and knowledge, ERSA is able to assemble expert teams tailored to meet the requirements of any project in the fields of:

- Risk Science
- Environmental Assessment
- Natural Resource Management
- NRM Auditing; and
- Project Management.

Examples of some of our team's work in these areas in 2010-2011 are profiled in this report.

2010-2011 Highlights

Central West Audit Readiness

In early 2011, ERSA helped NSW Central West CMA better understand the extent to which its NRM systems could be independently evaluated and shown to contribute to adaptive management.

Having been audited in the first round of NRC 'CAP' audits in 2008, Central West CMA was interested to see how well plans and systems to implement their new CAP might stand up to independent review. Our ERSA team was able to provide views on:

- the extent to which CMA implementation of the CAP could be audited
- any suggestions for where the CMA's processes could be improved to promote accountability and continuous improvement; and
- suggested steps that could be taken to improve the extent to which the CMA could make better use of audit processes to promote improved natural resource management.

The review process, and ERSA's report, helped the CMA to better understand the NRM audit process and to identify and prioritise improvement actions in preparation for an external evaluation of their work. This review also helped to dispel numerous audit 'myths' and increased staff awareness of the purpose and process of an external performance audit.



ERSA presents at CEDA Managing Major Catastrophes forum

Tony Batten presented a short paper prepared by Ken Granger on Emergency Management: Informing Decision Making to the Managing Major Catastrophes forum in Brisbane in April 2011. The forum was one of the Thought Leadership series organised by the Committee for Economic Development in Australia (CEDA) and featured a wide range of both national and international speakers.

Audit of the Implementation of Murray CMA's CAP



In September 2010 ERSA undertook a second audit of the implementation of the Murray Catchment Action Plan (CAP) for the NSW Natural Resources Commission (NRC), identifying significant improvement in NRM since a 2008 audit.

In our report, which is available on the NRC website www.nrc.nsw.gov.au, we identified that significant progress had been made by Murray CMA in the two years since the initial audit. Alongside recognition of the Board and management effort over the last two years, this progress confirmed that well designed audits, undertaken in an environment of continuous learning, can actively promote organisational improvement.

Undertaking the follow-up audit was important for ERSA. The entity of ERSA is relatively new, but ERSA team members have been instrumental in developing and implementing the NRC's audits of the Implementation

of CAPs since inception, so this engagement demonstrates acceptance of the ERSA structure and recognition of our core skills by one of our key clients.

This audit also provided another reminder to us, of our expertise in undertaking catchment-wide audits, as well as providing confidence in our understanding of risk management and natural resource management arrangements and policy settings more broadly, particularly across the catchments of the Murray Darling Basin.

ERSA receives prequalification for provision of consultancy services

In February 2011, ERSA pre-qualified as a consultant under the Performance and Management Services Scheme administered by the NSW Department of Services, Technology and Administration. The areas of expertise accepted were Program Reviews, Governance and Reporting, and Audit and Assurance Services. Pre-qualification will enable NSW public sector clients to consider engaging ERSA for more urgent jobs, as it means that some of the standard procurement processes have already been addressed.

ERSA awarded disaster management preparedness contract by Arts Queensland

In the wake of the flood event in the Brisbane River in January 2011, ERSA was engaged by Arts Queensland to undertake a review of the disaster management preparedness of the Queensland Cultural Centre (QCC) complex. The complex includes the Queensland Performing Arts Centre (QPAC), the Gallery of Modern Art (GOMA), the State Library and the Queensland Museum and together represents probably the most concentrated collection of cultural assets on a precinct of this size anywhere in the world.

ERSA's Principal Risk Scientist, Ken Granger, will lead this comprehensive review to consider the risk of natural disasters including flood, storm and earthquake and the potential impact of man made hazards.

ERSA Team Profile

WAYNE HASLAM

Wayne Haslam is Chairman of ERSA. Wayne has over thirty years' experience in the management of local and international development and risk management projects. He has formal qualifications in civil engineering, planning and human resource management and has managed projects in Australia and internationally.

Wayne's work has included some extremely challenging natural resource projects. In 2006 he completed a contract as the project director for the Yangtze River Flood Control and Management Project, a A\$15 million project funded by the Australian Government, protecting 80 million people living downstream of the Three Gorges Dam. This project received an Excellence Award from Engineers Australia for innovation.

Wayne has worked for all the major international agencies such as the World Bank, the Asian Development Bank and the United Nations on international development projects in countries of Asia, the Middle East and Africa.

Wayne adds value to all ERSA teams as mentor and problem-solver, as well as being the 'final word' on project quality, team performance and client satisfaction.

TONY BATTEN

Tony Batten is Managing Director and Company Secretary of ERSA. Tony has more than twenty years' experience in managing and delivering studies and projects and is highly skilled in land management issues. He has formal qualifications in surveying and spatial information and has managed risk management and NRM audit projects, for a broad range of clients, in Australia, NZ, PNG, China and Vanuatu.

Tony's work has included some projects that have led developments in risk science and NRM audit. For the NSW NRC, Tony led ERSA (and IID) teams in undertaking seven performance audits of the implementation of Catchment Action Plans (strategic regional NRM plans also known as CAPs). He participated in the development of the NRC's audit methodology and Audit Manual and was Lead Auditor for two initial audits that were used to develop the audit methodology. For government agencies in Queensland, Tony has project managed a major Digital Cadastre Upgrade Project with Noosa Shire Council, as well as a large number of risk assessments. These include the Pine Rivers, Maroochy, Caloundra, Beaudesert and North Stradbroke Island Bushfire Risk Management studies and the Balonne, Beaudesert, Logan, Caloundra, Caboolture and Townsville Natural Disaster Risk Management studies, many of which have been robustly tested and proven accurate by recent natural disasters.

Tony also has experience in larger scale projects in some pretty challenging places. In 2001, he led a multidisciplinary UN team in China to design a \$12 million Land Reclamation and Consolidation for Sustainable Land Use Project. This project established a policy framework for Chinese agencies responsible for the consolidation of rural farmland and the reclamation of land damaged by coal seam mining.

Tony has gained significant experience in business administration and corporate governance over the last twenty years, including serving as Director and Chairman of innovative land information start-up companies. His professional expertise has been recognised with an Australian Spatial Information Industry Business Association (ASIIBA) Chairman's award for services to the spatial information industry.

These skills and experiences mean that Tony is often called on to provide project management and direction for ERSA teams. While he adds his extensive expertise and judgement to key project tasks, Tony also makes sure that projects are delivered on time and with minimal disruption to our clients' day-to-day businesses.

KEN GRANGER

Ken Granger is a Director of ERSA and its principal risk scientist. Ken has been directly involved in the study and analysis of natural and anthropogenic hazards and the risks they pose to Queensland communities for the past twenty years. Over that time, Ken has undertaken both single and multi-hazard disaster risk studies at local government and regional levels that cover some 78% of Queensland's population.

Ken's experience is built on an earlier career in the national security environment including significant studies on strategic military geography of northern Australia and work on Australian Defence Force plans to support civil authorities in PNG to plan for potential volcanic eruptions at Rabaul and Karkar Island.

Since 2001 Ken has 'commercialised' and further refined the risk assessment tools and techniques he has developed throughout his career, and applied them as a science. Some of these methods are now available on the ERSA website, www.riskaudit.com.au.

Ken has undertaken projects which plan for and analyse responses to the risks of most things nature can throw at us. He has both undertaken and led, some twenty emergency risk management studies in Queensland, NSW (Newcastle and Lake Macquarie cities), South Australia (Port Adelaide) and New Zealand (Otago Region). He has also undertaken independent research for local government clients including the first major study of heatwave risks in South-East Queensland. He has undertaken a review of the recommendations of the 2009 Victorian Bushfire Royal Commission and their relevance to the management of bushfires in Brisbane City and a review of the degree to which Brisbane City Council's CityPlan 2000 complied with the provisions of State Planning Policy 1/03.

Ken adds immense value to all ERSA teams working on risk-related projects, through his thought-leadership and unmatched professional judgement. In addition to undertaking key project tasks in any disaster risk analysis, Ken also provides clients with a very broad context for their issues and the 'next step' thoughts that could further improve their risk and business practices.

JOHN LEAKE

John Leake has more than twenty years' experience in agriculture and natural resource management (NRM) in most states of Australia and overseas. He is well-recognised for his knowledge in this field and has applied it through both a risk science and an NRM audit context.

John has considered NRM from the paddock to beyond the regional scale. While he has conducted field inspections of CMA-funded projects for NSW NRM audits, he has also led a mid-term review of the \$32 million National Dry Land Salinity Program for Land Water Australia, spanning work in all states of Australia involving federal institutions, state authorities and local government, and a review of the \$75 million Upper South East Dry Land Salinity and Flood Management Plan, for the South Australian Government.

John has taken part in projects looking at most NRM issues, including wetland design, management of dry-land grazing pressure, reuse of saline effluent water, and rehabilitation of degraded land and landscapes.

John's work has contributed to the development of risk science and NRM audit approaches. As a key member of the ERSA (and IID) teams undertaking audits for the NSW NRC, John worked on the development of field sampling and assessment methods that are now accepted practice. On the risk side, in 2010, John worked with other ERSA team members to apply the ERSA risk science approach to analysing the impact of recovery efforts following the disaster caused by Tropical Cyclone Nargis in Myanmar. This work has led to significant interest in the role of natural resources in disaster risk management. He has also written and published papers on a range of NRM subjects including NRM audit and carbon sequestration into forests and soils.

John also works in some diverse and interesting environments, which allow him a unique breadth in the judgement he brings to ERSA projects. These jobs have included leading teams in planning and evaluating the US\$1.5 billion Central Asian Countries Initiative for Land Management (CACILM) for the five countries, and a range of ten donors including the Asian Development Bank, the World Bank, several UN group agencies, the German, Swiss and Canadian Governments and CGIAR agencies. In addition to his work in Myanmar, John has also worked in a number of other South East Asian countries.

John is an Adjunct Associate Professor at the University of Adelaide, Faculty of Social Sciences, School of Anthropology. He also sat on the NRM Council of South Australia, with responsibilities particularly focused on water issues, and is a member of the State Water Information Management Committee.

John's wide NRM knowledge and experience adds value to risk- and audit-focused ERSA project teams. His ability to get alongside natural resource managers and understand their work from a very broad context often provides clients with valuable unexpected insights that help them improve their management and perspective of achievements.

ERSA Team Profile

TIM KIRBY

Tim Kirby is an experienced environmental management and NRM consultant and auditor. His career has spanned financial audit (including for a range of primary sector clients), environmental and compliance audit (including the resources sector), general internal audit (including for NSW environment and conservation agencies) and NRM performance audit (including of NSW CMAs). Tim maintains professional certifications in these fields, including as a Chartered Accountant, a Lead Environmental Auditor and a Certified Internal Auditor.

Tim has experience in natural resource management from the site-based to landscape scale. Tim spent his first five years in NSW undertaking environmental audits for the NSW Environment Protection Authority, including developing a new comprehensive approach to compliance trialled with the timber treatment industry. More recently Tim has led programs and projects that have evaluated NRM strategies and work across CMA regions, the Snowy Mountains and the broader Murray Darling Basin.

Tim has expertise and experience across both corporate and natural resource management, holding a Masters in Environmental and Business Management from the University of Newcastle. He worked with Ernst & Young, an international professional services firm, for five years in New Zealand and the Solomon Islands, with mainly primary sector and government clients. In addition to work with the NSW EPA, Tim has worked in senior management positions for other NSW and Commonwealth government NRM agencies. These roles have given Tim a strong understanding of the NRM governance and institutional arrangements in place across Australia.

In the last five years, Tim has contributed to the development of a number of NRM audit and evaluation programs, including directing the NSW NRC audit program of implementation of CAPs, and helping establish the National Water Commission's audit program for implementation of the Murray Darling Basin Plan. Tim has contributed to the study of NRM audit with the University of Sydney and has published his own analysis of opportunities for financial auditors in NRM auditing.

Tim adds value to ERSA teams through his wide knowledge of audit methodologies and his professional judgement based on a unique mix of business and NRM experience. Tim has contributed audit aspects to risk-focused projects and has provided thought-leadership for NRM audit projects. Tim also actively undertakes audit field work and audit-readiness assessments, to balance more theoretical work and continually test audit methods and approaches.

MIKILA LAWRENCE

Mikila Lawrence has worked as an environmental consultant and advisor for 11 years. After obtaining a Masters in Environmental Technology from Imperial College, London, in 2001, Mikila moved to Australia, first to Adelaide and then to Sydney where she is currently based.

Mikila has environmental management and assessment experience in various fields including waste management, construction, resources and climate change mitigation. Her skills in this area include site selection and feasibility studies, environmental inspections, developing best practice guidelines, environmental management plans and approvals, climate change risk assessment, and stakeholder facilitation and community consultation.

Mikila's natural resource management expertise is equally as diverse. While working in the NRM team at Hyder Consulting, Mikila was seconded to the NSW Natural Resources Commission as a Natural Resource Analyst. During this time she travelled extensively within regional NSW to work with CMAs to improve their strategic plans. Through this experience Mikila developed a detailed knowledge of the regional delivery model for NRM and has since consulted to the NRC on a number of occasions, including in a team with other ERSA members to deliver five NSW CMA performance audits. She has applied her analytical and audit skills to work for the National Water Commission, the Marine Stewardship Council in London, and for individual CMAs seeking to strengthen their ongoing learning processes.

Mikila adds value to ERSA teams through her diverse experience, and her attention to detail. She is a strong report writer and is adept at tailoring reports to the audience.

Contact details

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