DAY TWO | ROOM ONE

EFFECTIVE SEAs? SCIENCE IS ONLY PART OF THE PICTURE

AUTHORS: Jenny Pope MEIANZ, Tanya Burdett MEIANZ, Naomi Maxwell David Blair MEIANZ, Richard Morgan MEIANZ

Theoretical Framework for SEA Effectiveness Review Facilitating non-science input: effective public participation in SEA Incorporating science into implementation: What makes for good strategic assessment implementation architecture? Science and SEA- The essential ingredient in the development of Renewable Energy Zones in Australia Beyond Science: Incorporating SEA into New Zealand's new environmental legislation Panel discussion exploring effectiveness elements and limitations on the role of science that emerged in the presentationsHowever, these principles and techniques are applicable across all parts of Australia and for any species or ecological community of interest. Applying them gives environmental practitioners opportunities to make best use of scientific information, whilst also pushing for better, evidence-based policy development and decision making.

SPEAKER BIOGRAPHIES

CAROLYN CAMERON

Carolyn Cameron has over 40 years' experience in environmental and strategic planning working with the mining industry, universities, state and national governments. She has worked in six states and territories in Australia, including developing on-line Masters-level courses, regional service delivery roles with the NSW EPA, and later with the Department of Primary Industries in Victoria, where she as a member of the North East Catchment Management Authority. More recently Carolyn was a Senior Executive with the national Department of Environment, leading teams to undertake strategic environmental and cumulative impact assessments across the country. Since 2015 she has been a senior consultant on complex environmental management projects, applying her skills in policy analysis, cumulative and strategic impact assessment, stakeholder engagement and strategy development with local and state governments, Departments of the Australian government, the Great Barrier Reef Marine Park Authority (GBRMPA), Jacobs and Food Innovation Australia Limited (FIAL). In all her roles, Carolyn has focused on working with industry and community stakeholders to develop and deliver practical strategies that incorporate good practice combined with grass roots input.

DR JENNY POPE

Dr Jenny Pope has over 30 years' experience in the fields of environmental management and sustainability, in Western Australia and internationally. She is currently a member of the Environmental Protection Authority (EPA) of Western Australia (appointed November 2018), and Director of Western Australian consulting firm Integral Sustainability, which works with business and government to integrate sustainability objectives and strategies into decision-making processes and operational practices. Jenny also holds a number of active academic positions; she is Extra-ordinary Associate Professor in Environmental Management at North-West University in South Africa and Fellow of the University of Cambridge Institute for Sustainability Leadership in the UK, where she teaches, researches and supervises Master's and PhD students. Jenny has qualifications in chemical engineering and public policy and commenced her career as an environmental process engineer in the water and the oil and gas industries, before establishing her consultancy business. She has particular experience in impact assessment in all its forms, sustainability planning and assessment, environmental management systems and environmental policy.

TANYA BURDETT

Tanya Burdett is a Registered Planner (Planning Institute of Australia), a member of the Institute of Environmental Management and Assessment EIA Quality Mark Pan-el and has been involved in a range of policy to project level environmental as-sessments throughout her 26-year career in a range of sectors – marine and coastal planning, urban development, roads and rail, energy and minerals, water resources and waste water management. A PhD Candidate, with consultancies in the UK and Australia, Tanya is passionate about capacity building, and as a li-censed International Association for Public Participation trainer, has delivered train-ing globally since 2009 and to 500+ participants from over 65 countries

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NAOMI MAXWELL

Naomi Maxwell is an ecologist with qualifications in biodiversity conservation and law. She has over 15 years' experience providing strategic environmental and policy advice in both the public and private sectors. Over her career, Naomi has led multi-disciplinary teams to deliver: strategic assessments in most Australian jurisdictions; cumulative environmental impact assessments; regulatory approvals under the Commonwealth Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act); and comprehensive public policy reforms. Naomi is uniquely positioned as one of the only Australian practitioners who has negotiated, designed, developed, assessed and implemented EPBC Act strategic assessments. Naomi was formally responsible for managing the implementation of the Melbourne Strategic Assessment for the Victorian Government. She has also recently developed strategic assessment policy for the Australian Department of Agriculture, Water and the Environment. Naomi is a former Executive for the then Australian Department of the Environment, including the A/Director of Strategic Policy responsible for designing EPBC Act regulatory reforms for the one stop shop for environmental approvals and as the A/Director of Parliamentary Services for three Australian Ministers for the Environment. Naomi is the director of Maxwell Strategic Consulting Pty Ltd. Her consultancy provides strategic environmental and policy advice to government and industry.

DAVID BLAIR

David is a Principal (Environmental Impact Assessments) in JBS&G's Melbourne office. He has a broad background with 20 years' experience in both technical and management functions across a variety of environmental projects. David has been involved in and led strategic environmental assessments, due diligence surveys, environmental impact assessments, environmental management plans, environmental management systems, environmental auditing, eco-tourism planning, and contaminated land assessment. David has experience in management of complex environmental impact assessment processes for both site specific and linear projects as part of a professional team where he brings environmental solutions to engineering challenges. David Blair has worked on projects across Australia, a number of African countries and Papua New Guinea where he has been engaged in projects as a strategic advisor, project director and project manager. David has practical experience in environmental legislative requirements of Australia, Papua New Guinea, South Africa, Zambia, Mozambique, Zimbabwe, Kenya, Uganda, and other African countries, as well as World Bank Environmental Performance Standards and the Equator Principles.

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DAY TWO | ROOM TWO

FROM BUNSEN BURNERS TO CULTURAL BURNING: FINDING SHARED SPACE FOR INDIGENOUS KNOWLEDGE IN SCIENCE

AUTHOR: Clara Klemski

Knowledge in science is based on hypothesis and exactitude, including when it comes to commercialising output. Concurrently, in the context of raging bushfires and climate change there is increasing focus on the value and wealth of Indigenous knowledge in managing the environment now and for the future. However, there is often a disconnect between the claim to ownership of knowledge between two differing systems of understanding the environment, where Indigenous environmental management is based on a system of communal knowledge and stewardship, contrasted with a Western science tradition of individualism and protection of individual outputs through current intellectual property laws and attitudes. This paper explores how pathways can be found for ensuring that Indigenous knowledge is incorporated in scientific outcomes while also protecting its value system, for example, through use of protocols and recognition of Indigenous Cultural and Intellectual Property within scientific projects and, where relevant, eventual commercialisation with a view to knowledge sharing and respectful collaboration that is Indigenous-led.

SPEAKER BIOGRAPHY

CLARA KLEMSIKI

Clara is a senior lawyer with expertise in environmental law and policy as well as a background in intellectual property law. She has advised on copyright, trade mark registration, Indigenous Cultural Intellectual Property (ICIP) and moral rights and has conducted litigation in the Land and Environment Court in planning and environment law. Particular areas of interest include Aboriginal cultural heritage and Aboriginal land claim, and she recently prepared articles on the review of the Environmental Protection and Biodiversity Conservation Act 1999 reforms and incorporation of Indigenous knowledge. Clara holds a Master of Administrative Law and Policy from the University of Sydney, and qualifications with honours in Law and Environmental Management from Macquarie University and a Graduate Certificate in Arts and Cultural Management from Deakin University.

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DAY TWO | ROOM TWO

THE 'SPIRITUAL ASPECT' IN NATIVE TITLE AND ABORIGINAL HERITAGE COMPENSATION

AUTHOR: Tim Mellor

The laws relating to monetary compensation for loss of property rights and interests have always reflected and embraced concepts of objective measures and calculations. In many cases it is primarily mathematical. In relation to one aspect, this 'science' has definitely come up short. The recent judgment of the High Court of Australia in Griffiths -v- Northern Territory (the Timber Creek Case) sees a willingness on the part of our highest Court to recognise and compensate Native Title holders for the 'spiritual harm' arising from the loss of or impairment to Native Title rights and interests. This paper considers this totally novel development, which recognises the limitations to the traditional 'science' of compensation calculation. That concept is likely to have a broader application in consideration of issues such as the loss of or damage to sites of significant Aboriginal Heritage The recent damage caused by mining interests to the ancient rock shelters at Juukan Gorge in the Pilbara provides an obvious example.

SPEAKER BIOGRAPHY

TIM MELLOR

Tim Mellor is a partner in the South Australian firm of Mellor Olsson and has been a member of EIANZ since its shortly after its foundation. For more than 25 years, Tim has been engaged in various aspects of the law relating to Native Title claims and determinations, and has been involved in most South Australian Native Title claim and determinations, including 24 consent determinations and the 14 claims presently before the Federal Court. He is a former President of the Law Society of South Australia and of the National Environmental Law Association. In 2020 and 2021 Tim was recognised by the publication "Best Lawyers in Australia", on selection by his peers, as "Lawyer of the Year" in Planning and Environmental Law in Adelaide.

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DAY TWO | ROOM TWO

PANEL SESSION | WALKING THE TALK: INTEGRATING INDIGENOUS KNOWLEDGE IN ENVIRONMENTAL POLICY AND PRACTICE

To discuss examples of (and barriers to) learning and collaborative environmental management and base data which integrates multiple sources of evidence, including Indigenous knowledge; and thereby contribute to the EIANZ Reconciliation Action Plan and ideas for new directions in policy and practice, through listening to First Nations and non-Indigenous environmental practitioners.

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DAY TWO | ROOM THREE

HOW CAN WE USE SCIENCE IN CONSTRUCTION ENVIRONMENTAL MANAGEMENT

AUTHOR: Richard Sharp

Everyday in Australia and New Zealand, regulatory authorities are approving infrastructure projects and in doing so are invoking environmental management conditions on the construction phase of these projects. Are these regulatory authorities however considering the role of science and how it can underpin the conditions that apply to the construction of infrastructure. This paper considers these aspects and show cases some examples of where science is being used in construction environmental management and where improvements still need to be made by regulatory authorities.

SPEAKER BIOGRAPHY

RICHARD SHARP

Richard has over 35 years of experience in providing advice and expertise in his chosen areas of professional practice which includes: environmental risk assessment; environmental management planning; the application of environmental best practice to construction; and the monitoring and auditing of environmental compliance associated with the delivery of infrastructure projects such as roads, electricity generating facilities and water distribution pipelines.

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DAY TWO | ROOM THREE

SUSTAINABILITY - EMPOWERED BY DATA

AUTHORS: Jessamine Welsh and Fiona Bowie

Data collection and analysis in sustainability management allows us to make good decisions and communicate the breadth and extent of sustainable outcomes both possible and achieved when planning and building major infrastructure projects. This is important given the extent of major infrastructure construction currently in the Australian pipeline. Sustainability involves concepts that are long-term and holistic, and thus hard to translate into tangible concepts for project decision makers. Combined with a traditional, yet unfounded perception of 'sustainability costs money', sustainability managers become empowered to create positive value when using their scientific expertise in data management, analysis, translation and communication. Through collection of sustainability data (e.g. energy and materials use during construction), analyses can be completed to demonstrate the positive outcomes achieved through investment in project sustainability. The North Western Project Alliance has been delivering Level Crossing Removal Projects across Melbourne for 4 years. We have collected data from four completed projects, including High St Level Crossing Removal Project, the first train station to be awarded a 5-star Green Star As Built rating in Australia. This data is put into action in three ways. This data is firstly used to demonstrate clear sustainable environmental, social and economic outcomes. Secondly, it facilitates data driven decisions, through multi criteria analysis to determine focus areas on future projects. Thirdly, translation of sustainability data into value creation encourages project teams to continue to improve on their achievements. The use of data has enabled our team to better understand where our greatest influence lies, however we have only began to scratch the surface of it's potential. Investment in new methods of data modelling and analysis software would result in even further improvements. The use of data in sustainability has not yet reached its limit of application and there are large opportunities for innovations and environmental benefit. ** Conditional - awaiting approval from LXRP

SPEAKER BIOGRAPHIES

JESS WELSH

Jess is a sustainability professional with a passion for waste management and circular economies. She is currently working as a Sustainability advisor on the North Western Program Alliance working on the Level Crossing Removals Projects. She does this concurrently with external waste management consulting, working to find circular economies in waste streams. Jess also comes from a technical science and research background which gives her an analytical view of looking at sustainability issues and how to create constructive outcomes.

FIONA BOWIE

Fiona is a passionate Melbournian who uses her influence on major infrastructure projects to deliver thriving and resilient cities. She is currently the Sustainability Lead on the North Western Program Alliance working on level crossing removals. She has worked on energy, rail, road and pipeline infrastructure projects across Australia for over 12 years. Her projects have achieved exceptional sustainability outcomes; most recently GBCA awarded the High St Level Crossing project the first 5 star Green Star As Built train station in Australia. Fiona is an alumni of The University of Melbourne, with a BSc. and a MEnv. majoring in Sustainable Cities.

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DAY TWO | ROOM THREE

ESG IN ACTION: USING SCIENCE TO DRIVE ESG IMPLEMENTATION AT EVERY LEVEL

SPEAKER BIOGRAPHY

ADRIAN WHITE

Adrian is the APAC Regional Sector Leader, Built Environment at SLR Consulting and leads the Acoustics and Vibration offering across Asia Pacific. He has extensive experience working as a professional engineer with a specialisation in noise and vibration engineering on large scale environmental projects. Adrian has held various senior roles in technical delivery, management, and business strategy across large scale consulting engineering companies. Adrian enjoys working with clients to develop long term relationships built on a foundation of delivery, quality and trust.

MILES LOCKWOOD

Miles is the APAC Advisory Operations Manager and ESG & Finance Sector Lead at SLR Consulting. An EHS sustainability consultant with over 25 years' experience advising in environmental and social risk management, Miles specialises in sustainable development advisory for major capital projects. Miles has multi-sector experience in advising private sector development and financial institutions on E&S risk management for project finance under international standards, with clients including private companies, Equator Principles banks, state owned investment and development banks, export credit agencies and multilateral Development Finance Institutions (DFIs).