

DAY THREE | ROOM ONE

POLLUTION INCIDENT HYPOTHETICAL – LINKING SCIENCE FROM PROJECT PLANNING TO EMERGENCY RESPONSE TO STRENGTHEN ENVIRONMENTAL, SOCIAL AND BUSINESS OUTCOMES.

The Session will be moderated by Jenny MacMahon with respected panel members including Suanna Harvey (Senversa- Environmental Management Specialist), Natasha Reifschneider (ESA2- Environmental Planning and Assessment Specialist), Gabrielle Guthrie (Guthrie Legal- Environment, Planning and Compliance Lawyer), a Victorian significant infrastructure project proponent, and/or a Victorian EPA regulator. A brief overview of the development will be provided including the environmental planning and assessment history, regulatory context, organisation chart, key stakeholders, and mock site plan, will be provided. The development proponent is an ASX Listed company. The hypothetical scenario will involve a panel discussion about a sequence of events following a pollution incident (loss of containment) from a recently approved significant development. The loss of containment has resulted in water quality impacts on a nearby waterway. The moderator will question panel members and actively explore with the audience: • Emergency response including notification of key stakeholders. • The impact of a pollution incident on the environment, community and proponent's business. • The adequacy of the science supporting the environmental assessment of the potential impact of an unplanned pollution incident on the waterway during the project planning phase. • The effectiveness of the transcription of science from the environmental assessment into conditions of consent and environmental management and monitoring. • The role of consultants in the development and implementation of environmental management systems. • How the proponent has assessed compliance. • Actions that could have minimised regulatory action using science, such as real time monitoring. The Session will be concluded with linking science from environmental assessments with environmental management and compliance audits, to eliminate and/or minimise environmental impact and regulatory action.

SPEAKER BIOGRAPHIES

JENNY MACMAHON



Jenny is Director of MacMahon Consulting, a certified Lead Auditor, and certified Environmental Practitioner, with over 30 years of experience in environmental leadership, management, compliance and auditing. Jenny has successfully led large multi-disciplinary environmental teams for Tier 1 engineering and environmental consultancies and private companies; improved operational environmental performance; delivered projects that benefit communities and the environment; and mentored engineering and environmental professionals. Jenny has delivered projects throughout the project life cycle and has led independent environmental audits; developed and implemented environmental

management programs; improved business' compliance performance; and provided environmental advice to support business decision making. Jenny's insight and experience has been gained across a wide range of business sectors including transport and water infrastructure, resources, energy, chemical and waste industries. Jenny has been approved by the NSW Department of Planning, Industry and Environment and the NSW Environment Protection Authority to undertake Independent Environmental Audits and as an Environmental Management Representative for TfNSW projects; and has chaired steering committees for NSW State significant infrastructure projects. Jenny is a member of EIANZ and volunteers as a Primary Ethics teacher, teaching young people how to explore ethical dilemmas.

SUANNA HARVEY



Suanna is Principal Environmental Scientist / Epa Appointed Auditor. She is an EPA Victoria Appointed Auditor and environmental professional with over 25 years of experience in environmental auditing, risk and environmental management, compliance, impact assessment and EPA approvals. She leads Senversa's Environmental Management and Approvals team. As an EPA auditor, Suanna is called on to provide a high level of assurance to the Victorian public about the potential risk of harm to human health or the environment from pollution or waste. With a chemistry background, she also promotes data driven and evidence-based decision making. Suanna has undertaken

over 130 audits of industrial facilities within sectors including transport, oil and gas, mining and minerals processing, defence, chemicals, printing, paint, paper, automotive, general manufacturing, pharmaceutical, food and beverage, construction, landfills, water, wastewater and waste treatment facilities. In her work Suanna strives to provide a wholistic, accessible and practical approach to environmental management, and is interested in the interface between the environment, people and systems.

NATASHA REIFSHCNEIDER



Natasha Reifschneider is Principal - Environmental Planning & Assessment And Sessional Member Of Planning Panels Victoria. She is an environmental assessment and planning practitioner with over 22 years' experience in the management and delivery of impact assessment and environmental approvals for the industrial, utility and infrastructure sector. Natasha's technical area of focus is navigating environmental and statutory planning approvals for major projects and providing strategic advice on the development and delivery of projects, coupled with the development and delivery of community and stakeholder engagement programs. Natasha's core strengths are in management of

multidisciplinary teams, options assessment, statutory approvals, and consultation/ engagement. Prior to her career in consulting, Natasha previously worked in both State and Local Government in statutory approvals. Natasha is also a sessional member of Planning Panels Victoria on a casual basis to provide her technical knowledge and experience in planning and environmental assessment to the Minister for Planning. Natasha is a member of EIANZ and the Victorian Planning and Environmental Law Association (VPELA).

GABRIELLE GUTHRIE

Gabrielle Guthrie is a leading environment and planning lawyer and Founder and Principal of her own law practice, Guthrie Legal. Gabrielle is based in Melbourne and advises corporations nationally on environmental compliance and development issues, including pollution incident response, defending EPA enforcement and helping clients develop legally compliant, environmental management and governance systems. Gabrielle has advised on large scale investigations by regulators and has defended clients in relation to alleged non-compliance in Victoria, NSW and Queensland.

VICTORIAN SIGNIFICANT INFRASTRUCTURE PROJECT PERSONNEL AND SENIOR VICTORIAN EPA REGULATOR

Bio - to be provided.



How good is science!?

EIANZ ANNUAL CONFERENCE

ONLINE 9, 10, 16 & 17 November 2021

DAY THREE | ROOM TWO

AS SURE AS CAN BE...: WHERE DO GOOD SCIENCE AND UNCERTAINTY MEET?

While science means rigour to most of us, how far is it reasonable to equate rigour with certainty? Using a Hypothetical scenario, this session will feature a panel of key stakeholders in a fictional but plausible proposal which is subject to impact assessment. In a setting similar to a Town Hall meeting, the panel will debate the project's challenges with respect to confidence in the prediction of impacts. Themes might include the role of data, the use of mathematical models, extrapolation, assumptions and adaptive management. With the engagement and assistance of the audience – as stakeholders in the proposal themselves – we will try to put some shape around how sure we can be, or we need to be. The panel will comprise invited speakers who will each adopt a role – as proponent, consultant, regulator, communicator, elected representative and NGO – and present a brief perspective on the constraints and opportunities associated with uncertainty, relative to the proposed development. The panel will then debate points of disagreement, and respond to progressive instalments of new information about the project, its environment and its potential effects. Using a modified “Revolving Conversation” or “Fishbowl” format, the audience will join the discussion and test the views of the panel. Subject to venue logistics, those participating virtually may also join the discussion. The session will close with a debrief of insights gained and lessons learned. The format offers the opportunity for issues around uncertainty to be explored in a safe, fun and imaginative setting. By drawing on the panel members' experience and the audience's healthy scepticism, we will test the boundaries of certainty, the application of the precautionary principle in an imaginary but probably recognisable world of vested interests, subjectivity and contention. We are sure we will learn something...

SPEAKER BIOGRAPHIES



JACK KROHN Senior Impact Assessor, Victorian Department of Environment, Land, Water and Planning

Jack Krohn is a Senior Impact Assessor at the Victorian Department of Environment, Land, Water and Planning, with over 30 years' experience in environmental impact assessment and environmental planning, and was recently appointed a Fellow Member of EIANZ. He has planned and co-conducted interactive sessions using Hypothetical scenarios at several IAIA conferences. Jack believes strongly in giving fellow professionals the opportunity to learn from each other and to find their own insights into the environmental challenges we meet daily in our work.



TANYA BURDETT Registered Planner

Tanya Burdett is a Registered Planner (Planning Institute of Australia), a member of the Institute of Environmental Management and Assessment EIA Quality Mark Panel and has been involved in a range of policy to project level environmental assessments 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, Tanya is passionate about capacity building, and as a licensed International Association for Public Participation trainer, has delivered training globally since 2009 and to over 500 participants from over 65 countries.



Environment Institute of
Australia and New Zealand Inc.

DAY THREE | ROOM THREE

BRINGING THE SCIENCE TO LIFE: APPLYING SOCIAL SCIENCE THROUGH SOCIAL IMPACT MANAGEMENT PLANNING

AUTHORS: Chris Mahoney, Dr Jillian Ash and Jessica Lew

Projects that transform the environment can catalyse social impacts, both positive and negative, for a broad range of stakeholders. In response to this, there are increased requirements and expectations for project proponents to develop and implement Social Impact Management Plans (SIMPs), particularly in the resources sector across Australia. In theory, SIMPs are to be developed in collaboration with affected and interested stakeholders in order to document social impact mitigation and benefit enhancement measures. As such, the SIMP has potential to be an important vehicle for ensuring projects effectively manage social impacts while delivering social value for multiple stakeholder groups. While the introduction of SIMPs has been considered an innovation in corporate and public policy, its implementation and efficacy has been varied. A key challenge in SIMP development is balancing and incorporating the multiplicity of stakeholder perspectives and interests due to the contested nature of many social topics and issues. Different stakeholders perceive and experience social impacts differently and as such may hold differing expectations to how the impact should be managed and monitored. The absence of recognising diverse stakeholder perspectives and expectations can limit the effectiveness of the SIMP and potentially risk the SIMP exacerbating impacts on select stakeholders. Drawing on our collective experience in delivering multiple SIMPs across Australia, we argue that SIMP development needs rigorous engagement with social science to enable the recognition and inclusion of diverse stakeholder perspectives. Social science can facilitate the understanding of subjective viewpoints or experiences of stakeholder groups through qualitative research methods, such as in-depth interviews, focus groups and ethnographic observation. Such recognition of diverse perspectives can lay the foundation for more accountable and effective SIMP practice.

SPEAKER BIOGRAPHIES



CHRIS MAHONEY Principal Social Scientist, SMEC

Chris Mahoney is SMEC's Principal Social Scientist. With over 20 years' professional experience, he is one of Australia's most experienced social impact and management planning professionals, having individually delivered more than 90 social impact assessments across multiple sectors. Chris has worked with proponents, governments and communities to design and implement extensive community development and social impact management plans, along with capacity building programs which have been instrumental in fostering community involvement, acceptance and support for projects. Chris has also been commissioned by government agencies and private sector proponents

as a subject matter expert in social science.



DR JILLIAN ASH Senior Social Scientist, SMEC

Dr Jillian Ash is a Senior Social Scientist at SMEC with over ten years' experience delivering social impact assessments, social impact management plans and other social research projects for diverse communities and clients, including in the resources, transport, water, climate change and international development sectors across Australia, Asia and the Pacific. Skilled in qualitative research, and with a strong commitment to bridge research, policy and practice, Jillian's approach to projects is to facilitate delivery of positive social outcomes for communities and stakeholders. Jessica Lew is a Social Scientist at SMEC with over two years' experience. Commencing her professional career at Queensland Government's

Office of the Coordinator-General as a Social Impact Assessment Officer, Jess has delivered comprehensive evaluations on social impact assessments and social impact management plans of resource and non-resource projects across Queensland. As such, Jess is acutely familiar with regulatory and good practice expectations towards social impact identification and management.



How good is science!?

EIANZ ANNUAL CONFERENCE

ONLINE 9, 10, 16 & 17 November 2021

DAY THREE | ROOM THREE

DEVELOPING A SOCIAL SCIENCE FRAMEWORK FOR SIA FOLLOW-UP

AUTHORS: Dr Lara K. Mottee, Dr Richard Parsons, and Tanya Martin

The application of social science methods in SIA is an internationally-accepted best practice standard. Embodied in international and local guidelines, such as the recent NSW SIA guideline, SIA practitioners are also expected to apply social science research techniques and have training in the social sciences. While there are high standards for leading practices in SIA that have contributed to an improved quality of pre-approval reports in recent years, innovations in post-approval evaluation practices are still needed to support better SIA follow-up and learning, and proponent accountability. Institutional support is also required to facilitate good practices, including participatory (community-led) monitoring. Previous research undertaken by the co-authors suggests a greater emphasis on applying good social science in follow-up processes will encourage a more reflexive and unbiased approach to SIA. In particular, previous findings indicate that the application of both qualitative and quantitative methods (i.e. a mixed-methods approach) in developing adaptive management strategies for monitoring contributes to better outcomes for the people affected by major development projects. We consider the dimensions of a preliminary social science framework for SIA follow-up, within the NSW planning regulatory context. Using examples from different industry sectors, we identify key social thematic areas, which could inform development of performance indicators and development approval conditions, for ensuring that social outcomes can be effectively monitored and managed post-approval. Implementing such a framework could improve accountability for decision-making and lead to an improvement in the overall quality of SIAs produced, through capturing learning from monitoring outcomes.

SPEAKER BIOGRAPHY



DR LARA KATHERINE MOTTEE Impact Assessment Consultant

Dr Lara Katharine Mottee is an impact assessment consultant, lecturer and researcher. Her recently completed PhD research investigated improvements in the assessment and management of social impacts in Urban Transport-infrastructure projects. Prior to commencing her PhD, spent 12 years' in practice as an Environmental and Social Impact Consultant/Planner in Australia. She currently works as an SIA Consultant at the Department of Planning, Industry and Environment.



Environment Institute of
Australia and New Zealand Inc.

How good is science!?

EIANZ ANNUAL CONFERENCE

ONLINE 9, 10, 16 & 17 November 2021

DAY THREE | ROOM THREE

USING SOCIAL SCIENCE WELL IN ENVIRONMENTAL MANAGEMENT

AUTHORS: Helen Ross, Claudia Baldwin, Natalie Jones and Angela Dean

If environmental management is people management, the social sciences are essential. It is important to know how people think; why they behave as they do and how to influence them to act differently; how their environmental, social and cultural contexts influence them; and how very different stakeholders can best collaborate towards improving environmental management and environmental impacts. In this presentation we argue for and illustrate ways of going beyond simplistic ways of treating these topics. We consider bodies of theory, research methods and practice methods on thinking, behaviour, systemic understandings, and collaboration. In exploring people's thinking, we highlight mental models and values. In behaviour, we discuss both individual and collective behaviour change, drawing on group learning and community development approaches used in agriculture. For rich contextual understanding, we illustrate some participatory systems approaches, and advocate for some use of deep social methods such as immersion in communities and management settings. Towards best use of collaboration, we canvas the variety of approaches available for participation and collaboration in planning and management, including participatory approaches to generating knowledge and planning, collaborative environmental management methods such as co-management and multi-party collaborations, and co-design of new technologies.

SPEAKER BIOGRAPHY



PROF. EMERITUS HELEN ROSS

Prof. Emeritus Helen Ross, best known to EIANZ as the Managing Co-editor of the Australasian Journal of Environmental Management, has been working on social science aspects of environmental management for 35 years. Her interests include resilience, mental models, values, Indigenous management, collaboration and community development, particularly in integrated catchment and water management contexts. She is a Fellow of the Environment Institute of Australia and New Zealand. Professor Claudia Baldwin uses participatory and visual methods to research institutional and social-environmental change on topics as diverse as water allocation, coastal planning, rural and regional

land use, climate change adaptation and community resilience, as well as age- and ability- friendly communities. Dr Natalie Jones is an applied anthropologist who is dedicated to advancing the role of social science in natural resource management within interdisciplinary teams. Her research interests involve understanding how people perceive and interact with environmental systems. She has established a strong track record in applying cognitive constructs, including mental models and values, to explore how people make sense of and relate to their environment, particularly in relation to water resources. Natalie has an interest in designing and implementing participatory processes to support decision-making, and is building a research program around the social dimensions of regenerative agriculture. Dr Angela Dean is an environmental social scientist with expertise in how to foster engagement with conservation and sustainability initiatives. She has more than 15 years' experience leading social research and behaviour change projects across diverse sectors, including agricultural practice, conservation stewardship, catchment management, integrated water management, and citizen science. Her research explores perceptions of environmental challenges, identifies how psychosocial factors and social and environmental context can enable or constrain engaging with environmental issues, and examines the effectiveness of communication approaches to strengthen support for, and participation in environmental stewardship.



Environment Institute of
Australia and New Zealand Inc.