



ENVIRONMENT INSTITUTE OF AUSTRALIA AND NEW ZEALAND

# L2A ONLINE PROFESSIONAL DEVELOPMENT

10, 17 AND 24 MARCH 2021 | 9AM – 12.30PM

# L2A

## Infrastructure EIA

### COURSE PROGRAM

*Climate change in environmental practice*



Environment Institute  
of Australia and  
New Zealand Inc.



**UTS** Institute for  
Sustainable  
Futures

Series Education Partner



**Sustainably...**  
Adapting in context

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The award-winning learning to adapt professional development series is back in 2021, responding to the local, national and global challenges of climate change. Our first course will deliver targeted skills development on climate change in infrastructure environmental impact assessment. Our focus is on the NSW jurisdiction, exploring themes that apply just as well elsewhere.

Guided by a dozen expert speakers from the research and policy communities and by case studies presented by practitioners, we will be considering how best to assess the risk of climate change related environmental, social and economic impacts on infrastructure projects, and the risk of impacts resulting from these projects, such as increased emissions of greenhouse gases. These climate change risks arise because of the acute and the chronic physical impacts of a warming planet on infrastructure projects and because of the risk of evolving human efforts to curb this warming have for these projects, what are now often called "transition risks".

### **OVER THREE HALF DAY INTERACTIVE ONLINE SESSIONS WE WILL LOOK AT:**

- » Considering climate risks in infrastructure EIA
- » Risk assessment and adaptive pathways in infrastructure EIA
- » Communications for resilience in infrastructure EIA

### **L2A INFRASTRUCTURE EIA COURSE DETAILS**

**SESSION 1** Considering climate risks in infrastructure EIA will position climate change in the NSW policy context, exploring the implications for EIA practice of current NSW planning law and policy relating to climate change. We will survey current policy tools, as well as some of the emerging proprietary products, that assess transition, acute and chronic physical climate change risk in your infrastructure projects.

**SESSION 2** Risk assessment and adaptive pathways in infrastructure EIA will explore different approaches to climate change risk assessment, drawing attention to how these fit into current NSW EIA processes. We will consider how climate risk assessment in an EIA relates to community context, project scope, financing and ownership, leading us to consider how an adaptive pathways approach can be established in your EIA.

**SESSION 3** Communications for resilience in infrastructure EIA will review how external and internal stakeholders engage with climate change risks associated with infrastructure projects of different scales, and in different locations. This informs how your whole EIA project team should be engaging in managing climate change risks.



## COURSE DELIVERY

To facilitate greater access across NSW and Australia, to minimise the risk of disruptions in response to Covid-19 and to maximise your opportunity to interact with peers and with our expert speakers this course will be delivered over 3 x half days, one week apart, live online, via zoom:

- » **SESSION 1:** 9.00am to 12.30pm Wednesday 10 March 2021
- » **SESSION 2:** 9.00am to 12.30pm Wednesday 17 March 2021
- » **SESSION 3:** 9.00am to 12.30pm Wednesday 24 March 2021

Participants will work together in breakout rooms, engage in facilitated discussion with speakers and have access to the course slides at the conclusion to their online professional development.

Participation in the course will be recognised through a Certificate of Attendance, supported by the Institute for Sustainable Futures, UTS and will attract 20 CPD points in the CEnvP program.



## WHO SHOULD ATTEND?

This course has been designed for early and mid-career environmental practitioners in regulatory, policy, consulting and infrastructure development sectors looking to develop specialised skills in climate change and infrastructure EIA.

Places are limited. L2A Infrastructure EIA will run with a maximum of 20 participants to ensure quality of learning, and adequate scope for networking and engagement.

### KEY DETAILS

- » To register visit <https://www.eianz.org/events/event/learning-to-adapt-infrastructure-eia> and follow the registration details.
- » Registration will close 5 pm 9 March 2021, or when the course is full.
- » This course will take place subject to minimum registrations being met. Full refunds will be provided in the unlikely event that the course is cancelled and cannot be re-scheduled.
- » Cost is EIANZ Members - \$720, Non-members - \$1050.



# Summary program

## SESSION 1: CONSIDERING CLIMATE RISKS IN INFRASTRUCTURE EIA

9.00AM TO 12.30PM 10 MARCH 2021

<p><b>INTRODUCTION TO CLIMATE CHANGE RISK</b></p> <p>The risks presented by climate change are increasingly being understood to encompass the risks associated with a transition to a more sustainable, low-carbon economy, as well as the acute and chronic physical risks associated with climate hazards. EIA practice is now being required to assess these different risks and propose mitigating measures.</p>	<p>Dr Fabian Sack, Director, Sustainably</p>
<p><b>THE FUTURE OF CLIMATE CHANGE IN NSW EIA</b></p> <p>Key State policy initiatives for assessing and managing climate change.</p>	<p>Felicity Greenway, Executive Director, State Policy and Strategic Advice, NSW Department of Planning and Environment</p>
<p><b>CLIMATE-READY PLANNING LAWS FOR NSW: ROCKY HILL AND BEYOND</b></p> <p>This session looks at how climate change is considered under current NSW planning laws and assessment processes, and explores options for making more effective climate-ready planning and environment laws at both a state and national level.</p>	<p>Rachel Walmsley, Head of Policy &amp; Law Reform, Environmental Defenders Office</p>
<p><b>ADAPT NSW AND BEYOND: SOURCING AND INTERPRETING CLIMATE DATA FOR EIA</b></p> <p>Climate model data often forms a crucial part of the EIA process. However, since these data often enter EIAs indirectly through third parties, the data sources and their limitations are often not well understood. This presentation looks to explain the principle sources of climate data, pitfalls in interpretation, and how this rich data source can be best used to define environmental risk, and ultimately, translated into financial value.</p>	<p>Dr Thomas Mortlock, Senior Risk Scientist, Risk Frontiers</p>
<p><b>CROSS-DEPENDENCIES IN ASSESSING CLIMATE RISKS FOR INFRASTRUCTURE</b></p> <p>This presentation will outline real world case studies of how large financial institutions and governments are using asset level analytics to identify the risks to their own infrastructure, and on the supply chain infrastructure they depend on. This includes power, water, telecommunications and transport services.</p>	<p>Rohan Hamden, CEO, XDI: The Cross Dependency Initiative</p>
<p><b>INTEGRATING CLIMATE RESILIENCE AND CARBON NEUTRALITY INTO SYDNEY METRO</b></p> <p>This presentation will provide some insights into how planning for climate change and net zero is being addressed on Australia's biggest public transport project.</p>	<p>Jo Haggerty, Acting Associate Director Sustainability, Sydney Metro</p>

# Summary program

## SESSION 2: RISK ASSESSMENT AND ADAPTIVE PATHWAYS IN INFRASTRUCTURE EIA

9.00AM TO 12.30PM 17 MARCH 2021

<p><b>APPROACHES TO CLIMATE CHANGE RISK ASSESSMENT</b> Climate change risks assessment tends to be conducted over long time periods, are subject to uncertainties (many of which are social or economic) and often are cumulative and interdependent. Consideration of vulnerability and exposure is critical and increasingly EIA practice needs to accommodate a more iterative, pathways approach to addressing climate risk.</p>	<p>Dr Fabian Sack, Director, Sustainably</p>
<p><b>INTEGRATED REGIONAL VULNERABILITY ASSESSMENT</b> Vulnerability assessments vary in scale (local to global), scope (infrastructure, communities, business, food production) and focus (emergency preparedness, service delivery, supply chains). This session will explore the concepts and practice of vulnerability assessment through the lessons learned in the NSW Government's Enabling Regional Adaptation project that, over 12 years, engaged more than 1,500 regional, public sector decision makers throughout NSW in adaptation planning for climate change.</p>	<p>Associate Professor Brent Jacobs, Research Director, UTS-Institute for Sustainable Futures</p>
<p><b>CORPORATE GOVERNANCE AND CLIMATE DISCLOSURES IN EIA</b> Implications of the increasing requirements for, and scrutiny of, climate risk disclosures for environmental impact assessment.</p>	<p>Ballanda Sack, Special Counsel, Beatty Legal</p>
<p><b>HOW DO WE ADDRESS THE LIMITS OF TRADITIONAL CLIMATE RISK ASSESSMENT? THE CASE FOR ADAPTATION PATHWAYS</b> While it is not a new technique, climate risk assessment is becoming an increasingly important method to determine the underlying resilience of major infrastructure and assets, driven by initiatives such as the TCFD. Best practice climate risk assessment is well established and aligns with standards such as ISO31000. However, the resulting assessments often deliver a long list of adaptation options with asset owners needing to determine what are the highest priority risks to act on in the immediate future. However, given that climate change will increase exposure to climate hazards in the decades ahead some adaptation options are required now while others can and should be delayed. This presentation discusses the potential role of adaptation pathways as a method for exploring the optimal timing of adaptation actions and how this can help build a compelling narrative to engage decision makers.</p>	<p>Dr Mark Siebentritt, Director, Commercial and Expansion, Edge Environment</p>
<p><b>MANAGING CLIMATE CHANGE RISK IN THE INLAND RAIL PROJECT</b> A holistic and collaborative approach to assessing risk and mitigation on a linear infrastructure project.</p>	<p>Georgia Gosse, Sustainability Manager, Australian Rail Track Corporation – Inland Rail</p>



# Summary program

## SESSION 3: COMMUNICATIONS FOR RESILIENCE IN INFRASTRUCTURE EIA

9.00AM TO 12.30PM 24 MARCH 2021

<p><b>ISSUES IN COMMUNICATING CLIMATE CHANGE</b> Climate change is a highly contentious issue in many contexts, including EIA. Careful consideration of how best to address this issue when engaging the community as part of impact assessment is warranted, taking into account community values and the influence of sectional interests.</p>	<p>Dr Fabian Sack, Director, Sustainably</p>
<p><b>ENGAGING NSW STAKEHOLDERS ON CLIMATE CHANGE IN INFRASTRUCTURE EIA</b> This session will explain the Department's approach and expectations for stakeholder engagement on major infrastructure projects with a particular focus on the challenges of climate change and responding to them.</p>	<p>Erica van den Honert, Executive Director, Infrastructure Assessments, NSW Department of Planning, Industry and Environment</p>
<p><b>EMBEDDING GREEN INFRASTRUCTURE IN URBAN LAND USE PLANNING</b> Urban land use planning plays an important role in setting social, economic, environmental and culture outcomes now and into the future. Green infrastructure, and the underpinning environmental information, can play a critical role in improving people's lives and in delivering more sustainable and resilient communities and environments. This presentation will provide an overview of several of the Department's strategic land use planning process and how green infrastructure considerations inform those processes.</p>	<p>Steve Hartley, Executive Director, Green and Resilient Places, NSW Department of Planning, Industry and Environment</p>
<p><b>CONSULTING THE COMMUNITY ON RENEWABLE ENERGY PROJECTS</b> This session will draw on Andrew's experiences engaging with the community on a range of renewable energy projects, discussing the benefits, problems and varying expectations of stakeholders.</p>	<p>Andrew Brownlow, General Manager, Central NSW, Premise</p>
<p><b>CLIMATE CHANGE RISK ASSESSMENT FOR ENVIRONMENTAL IMPACT ASSESSMENT AT TRANSPORT FOR NSW</b> TfNSW has developed an innovative new approach to Climate Risk Assessment for environmental impact assessment to mitigate climate risks. The presentation will cover Climate Risk Assessment and the supporting model/tools which are used to support environmental impact assessment.</p>	<p>Dr Veronika Emetc, Sustainability Manager, Environment and Sustainability branch, Transport for NSW</p>



## ABOUT EIANZ

[The Environment Institute of Australia and New Zealand \(EIANZ\)](#) is the leading not-for-profit professional association for environmental practitioners. The Institute supports the profession and promotes independent and interdisciplinary discussion on environmental policy and practice.

Our members come from all areas of environmental practice and are at the forefront of assessing and addressing complex issues such as climate change, sustainability and preserving biodiversity. Some members are at the start of their careers, while others are highly regarded experts in their field.

## PARTNERS



### SERIES EDUCATION PARTNER

[The Institute for Sustainable Futures \(ISF\)](#) is a university research institute that has been creating change towards sustainable futures by conducting independent project-based research for Australian and international clients since 1997. ISF's researchers and professional staff come from varied backgrounds, including engineering, architecture, management, economics, science, the social sciences, international studies and political studies.



### STUDENT MEMBER SUPPORTER

[Sustainably Pty Ltd](#) specialises in working with organisations responding to emerging climate change risks and opportunities by delivering bespoke training and professional development, research, analysis and advice at scale across different sectors.

### KEY CONTACTS

<b>Registration:</b>	Environment of Australia and New Zealand (EIANZ) Phone: 03 8593 4140 Email: <a href="mailto:office@eianz.org">office@eianz.org</a>
<b>Course Content:</b>	Fabian Sack, Sustainably Pty Ltd <a href="mailto:fabian@sustainably.net.au">fabian@sustainably.net.au</a>
<b>Sponsorship:</b>	Fiona Gainsford, EIANZ NSW Division <a href="mailto:fiona@gainsford.com.au">fiona@gainsford.com.au</a>

# Expert Speakers

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## SESSION 1: CONSIDERING CLIMATE RISKS IN INFRASTRUCTURE EIA

9.00AM TO 12.30PM | 10 MARCH 2021



**Dr Fabian Sack, Sustainably Pty Ltd**

Fabian is the founding Director of Sustainably, a consultancy specialising in climate change adaptation capacity building. Prior to this he held senior positions in the water, energy and infrastructure servicing sectors. Fabian has published on ecological economics, skills for sustainability and social impact assessment.



**Felicity Greenway, Executive Director, State Policy and Strategic Advice, NSW Department of Planning and Environment**

Over the course of 20 years in planning, Felicity has built her professional practice to include oversight of planning processes for high-profile, critical infrastructure and assets at a state level. She has managed both significant policy and assessment portfolios.

She has played a critical role in establishing new assessment policies, sufficiently robust and rigorous to manage major changes in the development and infrastructure landscape, such as the long term lease of electricity networks, wind farms and major project reforms. She works collaboratively with counterparts across the NSW public sector, industry and community to scope and deliver reforms.



**Rachel Walmsley, Head of Policy & Law Reform, Environmental Defenders Office**

Rachel Walmsley is the Head of Policy & Law Reform at Environmental Defenders Office. She has over 17 years experience working on public interest environmental law and policy in Australia and overseas. She has written extensive law reform submissions and discussion papers and advised governments and NGOs on a range of environmental and climate law issues and reform processes, including the recent EPBC Act review.



# Expert Speakers

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## SESSION 1: CONSIDERING CLIMATE RISKS IN INFRASTRUCTURE EIA

9.00AM TO 12.30PM | 10 MARCH 2021



**Dr Thomas Mortlock, Senior Risk Scientist, Risk Frontiers**

Dr Thomas Mortlock is Senior Risk Scientist at Risk Frontiers where he leads the development of climate risk modelling services. He has worked for over 12 years in climate science, and coastal and flood risk modelling. Thomas is a Chartered Engineer and an Adjunct Fellow at Macquarie University, and holds a PhD in Coastal Geoscience. He has authored over 20 papers on climate impacts and sits on the Australia Pacific Climate Partnership (APCP) Expert Panel.



**Rohan Hamden, CEO, XDI: The Cross Dependency Initiative**

Rohan is the CEO of XDI: The Cross Dependency Initiative, a global provider of infrastructure risk assurance services based on climate change science, infrastructure engineering and advanced statistical methods.

Rohan began his career in Government as a fire fighter. After nearly 15 years, his last role in Government was as the Director of the Climate Adaptation Program for South Australia. He designed and led the implementation of the States multi-award winning climate change adaptation program, which delivered a transformation in how communities and industries work together to adapt to climate change.

For the past 7 years he has worked in the commercial sector advising businesses and governments on climate change impacts and adaptation options. He has several degrees, and over 25 years' experience in risk management, business impacts and climate change.



**Jo Haggerty, Acting Associate Director Sustainability, Sydney Metro**

Jo Haggerty is Acting Associate Director Sustainability for Sydney Metro, where she integrates and collaborates with project teams across the organisation to drive great environmental and social outcomes.

Jo has more than 25 years of experience in the environment and sustainability field, working in both public service and consultancy. For the last ten years, her work has focussed on applying best practice sustainability principles in the delivery of major public transport projects.

# Expert Speakers

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## SESSION 2: RISK ASSESSMENT AND ADAPTIVE PATHWAYS IN INFRASTRUCTURE EIA

9.00AM TO 12.30PM | 17 MARCH 2021



**A/Prof Brent Jacobs, Research Director, UTS-Institute for Sustainable Futures**

A/Prof Brent Jacobs is a Research Director in the UTS-Institute for Sustainable Futures working in climate change adaptation, landscapes and ecosystems, and food systems. He has a background in agricultural science, a decade of experience in the natural resource sector in NSW Government, and his current research interests include vulnerability, transformation, and adaptive capacity of communities to support climate change adaptation. He led the Adaptive Communities Node of the NSW Climate Change Adaptation Research Hub.



**Ballanda Sack, Special Counsel, Beatty Legal**

Ballanda is Special Counsel at Beatty Legal, a boutique law firm based in Sydney specialising in Environmental, Planning and Valuation Law. Ballanda has acted for Government, proponents and objectors in relation to EIA requirements for major projects, consent authorities and applicants in planning appeals, advised a consortium of Local Councils in multiple jurisdictions, and presented on behalf of Local Government NSW, on strategies for identifying and managing climate change legal risk. She was on the expert panel of NCCARF's CoastAdapt discussion forum.



**Dr Mark Siebentritt, Director, Commercial and Expansion, Edge Environment**

Mark Siebentritt is a Director of Edge where his focus is on Climate Change Response Planning, Strategy and Engagement. He has worked across the public, private and research sectors for the past 20 years. Mark's focus is on bringing together rigorous science and creative engagement processes to deliver leading-edge planning and implementation approaches. He has delivered or collaborated on over 100 climate change projects in the past 5 years, including projects in NSW, Victoria, and SA. Aside from technical experience with climate risk assessment, Mark also has extensive experience with climate change strategy and engagement processes. Together with Dr Mark Stafford Smith, Mark co-authored the 2016 User Guide for Applied Adaptation Pathways.



**Georgia Gosse, Sustainability Manager, Australian Rail Track Corporation – Inland Rail**

Georgia is currently the Sustainability Manager for Australian Rail Track Corporation – Inland Rail. The Inland Rail program is comprised of 13 individual projects and spans more than 1,700 km. Inland Rail is the largest freight rail infrastructure project in Australia, at a capital cost of approximately \$9bn. Georgia's role involves developing and implementing the sustainability strategy which covers aspects at a strategic level and at a more detailed project level. Georgia is involved in embedding sustainability throughout planning, design, procurement, and construction of all 13 projects.

# Expert Speakers

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## SESSION 3: COMMUNICATIONS FOR RESILIENCE IN INFRASTRUCTURE EIA

9.00AM TO 12.30PM | 24 MARCH 2021



**Erica van den Honert, Executive Director, Infrastructure Assessments, NSW Department of Planning, Industry and Environment**

Erica van den Honert is Executive Director Infrastructure Assessments at the Department of Planning, Industry and Environment (DPIE). Previously, Erica spent 20 years as a consultant in South Africa and Australia before joining DPIE in 2015 to review EIA and prepare post-approval guidelines before accepting the position of Director Infrastructure Management, focusing on the post approval phase of projects. The Infrastructure Assessments team in DPIE assesses State significant transport and social infrastructure projects.



**Steve Hartley, Executive Director, Green and Resilient Places, NSW Department of Planning, Industry and Environment**

Steve Hartley is the Executive Director Green and Resilient Places with the Department of Planning, Industry and Environment. Steve has worked in natural resource management in a policy, regulatory and operational capacity for most of his career and has been with the Department since 2018. Steve is an ecological economist by training and is passionate about how to use policy and regulatory levers to integrate ecological knowledge with land use planning decisions to deliver greener and more sustainable and resilient urban environments.



**Andrew Brownlow, General Manager, Central NSW, Premise**

Andrew is a CEnvP and certified auditor with over 25 years experience scoping, conducting and managing multi-disciplinary teams undertake environmental impact assessments for a range of infrastructure projects. Based in regional New South Wales, he has managed Premise's environmental services group, focusing primarily on developments in agribusiness and renewable energy. He is highly proficient in project management and the conduct of environmental compliance audits, and he has a robust knowledge of and experience with natural resource, planning, and environmental protection legislation.



**Dr Veronika Emetc , Sustainability Manager, Environment and Sustainability branch, Transport for NSW**

Veronika has a background in mathematical modelling, Earth and climate sciences and specialises in resilience and climate risk assessment. Veronika has developed a new methodology and tools for TfNSW for conducting Climate Risk Assessments for transport infrastructure which is a key input to environmental impact assessment to mitigate climate risks and assist in improving transport asset resilience.



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