



## Dr Katrina O'Mara

### Qualifications

Doctor of Philosophy

Graduate Diploma of Education (Adult & Tertiary)

Bachelor of Science with Honours (Physics)

Bachelor of Science (Chemistry and Physics)

### Awards

Inaugural winner - Leadership in Infrastructure Sustainability Award 2014

Winner – 40under40 Awards, WA Business News 2011

Finalist –Science Communication outside the Classroom Awards, Premier's Science Awards, 2007

State Winner – Young Australian of the Year Awards, 2000

Winner: Science and Technology Achiever– Young Australian of the Year Awards, 2000

Finalist Environment Achiever – Young Australian of the Year Awards, 2000

Winner – WA Office of Energy: Energy Achiever of the Year Awards, 2000

## Profile

Kat is one of Australia's leading infrastructure sustainability professionals, been recognised as the inaugural winner of the Leadership in Infrastructure Sustainability Award by the Infrastructure Sustainability Council of Australia (ISCA) in 2014.

Her almost unique combination of experience in resource management, particularly energy and materials, along with her extensive community and stakeholder engagement experience – both spanning more than 20 years, provide her with a detailed understanding of both environmental and social aspects of sustainability.

Kat led the Design phase of the sustainability program for the GatewayWA: Perth Airport and Freight Access Project, which was the first road project in Australia to achieve an Excellent Infrastructure Sustainability Design rating.

Kat also regularly works with ISCA, as both a verifier for projects seeking a rating and to deliver foundation training for individuals seeking to become Accredited Professionals. She has also certified as the first Australian based Sustainable Transport Professional (STP $\alpha$ ) by the American GreenRoads Foundation.

## Experience

### *Infrastructure Sustainability*

Katrina has an excellent understanding of the sustainability aspects associated with infrastructure planning, design, construction and post construction evaluation, in particular in relation to the Infrastructure Sustainability Council of Australia's (ISCA) IS Rating Scheme.

- Inland Rail –North Star NSW to Kagaru QLD** 2017 - 2018  
Kat is currently leading the team delivering the planning phase sustainability considerations associated with the pre-feasibility, planning and approvals documentation of five projects which will form part of the Inland Rail Program IS rating.
- ISCA Training Development and Delivery** 2011- current  
Kat worked with ISCA to develop the initial version of the Foundation Training (now Accredited Professional Training) and has been a member of the IS Faculty contracted to deliver public and in house Accredited Professional training since 2012. Her training activities have also included delivering training on behalf of ISCA in Jakarta and in Auckland.
- ISCA Independent Verifier** 2011- current-  
Kat is a member of ISCA's national verification panel and led a number of verifications during the pilot phase in addition to working on projects which have recently been certified. Kat's verification activities have spanned a range of infrastructure sectors.

- **LandCorp - Ocean Reef Marina** 2018 - current  
 Kat is working collaboratively with the state land development agency during the planning phase for a proposed mixed use marina precinct within a marine park which is seeking a v2.0 Planning Phase rating for the development.
- **Forrestfield Airport Link – Technical Advisor** 2018  
 Kat has been providing ad hoc technical advisory services to the Public Transport Authority of Western Australia, including as an independent sustainability auditor for the design and construction contractors sustainability management plan and evaluation of the benefits mapping associated with pursuit of a rating for the asset owner.
- **North East Link Technical Advisors** 2017-2018  
 Kat provided strategic sustainability advice as part of the AECOM-GHD Joint Venture. Her work has included undertaking an assessment of the Version 2.0 credits for proposed major road project.
- **Level Crossings Removal Authority Technical Advisors** 2016-2018  
 Kat is providing strategic sustainability advice as part of the AECOM-GHD Joint Venture. Her work has included assisting the Mernda rail team identify the Base Case and to provide advice in relation to the program transitioning to version 1.2.
- **West Gate Tunnel** 2017  
 Kat has been the peer reviewer for the IS aligned carbon footprint for a major road and tunnel project which is currently in procurement in Victoria.
- **NorthLink WA - Central Section** 2015-2018  
 Kat was the Design Team Sustainability Lead and had responsibility for delivering the key credits in Energy and Carbon, Climate Change, Water associated with the IS Design rating for the project which forms part of the NorthLink WA Program IS rating.
- **GatewayWA** 2012-2014  
 Sustainability Manager with responsibility for the implementation of awareness raising and the identification and implementation of sustainability initiatives as part of an incentivised KRA. As part of her role, Kat was responsible for delivering the certified *Excellent* IS Design rating for the project.
- **Adelaide Airport Operations Rating** 2018  
 Kat provided strategic IS rating advice to AECOM's Adelaide team and Adelaide Airport in relation to their involvement in piloting the v1.2 Operations rating.
- **ISCA Version 2.0 Updates** 2016- 2017  
 Kat is the lead peer reviewer for the development of the revised Energy and Carbon categories being developed as part of the Version 2.0 of the rating tool.
- **Northern Beaches Road Hospital Upgrade** 2016- 2017  
 Kat was peer reviewer and strategic advice associated with the Design phase of the road and network upgrade in NSW.
- **NorthLink WA – Southern Section** 2016  
 Kat conducted an IS aligned sustainability audit for the Tonkin Grade Separations stage of NorthLink WA.
- **Queanbeyan City Council Sewage Treatment Plant** 2015  
 Kat provided strategic advisory services to support the operations phase rating for existing STP which will be used to inform the design and operation of a new STP.
- **Auckland Airport New Terminal** 2015  
 As Strategic Sustainability Advisor, Kat provided strategic advice to the project and sustainability team during the planning phase for the new terminal.
- **Forrestfield Airport Link Project Development** 2014-2015  
 Kat was the Infrastructure Sustainability Manager with responsibility for the embedding of sustainability requirements in the Tender documentation including Scope of Work and Technical Criteria.
- **City Rail Link** 2015  
 Kat provided strategic sustainability advice and peer review to the NZ City Rail Project Her work includes working with the project team to identify the Base Case and to footprints for carbon, water and materials
- **Confidential Client** 2017-2018  
 Kat provided advice to this aviation sector client in relation to the potential sustainability requirements for a proposed airport development. This advice has included advisory services associated with contractual sustainability requirements and strategies to minimize risks associated with these requirements.
- **Swan Pedestrian Bridge** 2016  
 Kat led the Sustainability Review for the Swan Pedestrian bridge which, although not pursuing a formal IS rating has a KPI in relation to the self-assessed performance using the IS rating scheme.

- **Stadium Station** 2015-2016  
Kat led the Sustainability Review for the Swan Pedestrian bridge which, although not pursuing a formal IS rating has a KPI in relation to the self-assessed performance using the IS rating scheme and is providing Sustainability Advice to the Alliance.
- **MAX Perth Light Rail** 2013-2014  
Kat led the development of sustainability strategy, position paper and delivery of social impact assessment for the Perth light rail project, Metro Area Xpress (MAX). Kat was also a member of the JV Advisory Board tasked with undertaking a strategic review of the project development activities being undertaken by the Integrated Delivery Team.
- **Mirrabooka Stage 3** 2013  
Kat developed of an IS Rating strategy to support road and services upgrade for the Mirrabooka Town Square redevelopment, which ultimately did not seek a rating.
- **Safelinks: Goldfields & Mid-West Hwy Upgrade** 2013-2015  
Implementation and management of sustainability support of an IS self-assessment.
- **South Metro Connect: Roe Highway Extension** 2010-2011  
Kat was also responsible for the preparation of Environmental Handover Documentation and IS Rating Scheme Preliminary Evidence Report for the client to provide in RFP documentation.
- **South Metro Connect: Roe Highway Extension**  
2010-2012; 2016  
Katrina led the Sustainability and Innovation services to planning alliance for the Roe Hwy Extension, including development of Sustainability Framework and identification of innovation opportunities aligned to the then proposed AGIC rating scheme (not IS rating scheme).
- **Team Savannah ECI** 2009-2010  
Peer review of sustainability report, including AGIC Quick Check sustainability evaluation
- **Access Alliance - Great Northern Highway Upgrade (Mueha to Wubin)** 2008-2010  
Investigation Evaluation of the potential for biochar use in roadside rehabilitation. Also led the review of international approaches the pavement construction and identification of potential low carbon alternatives for Access Alliance.

## *Ecological Sustainable Development*

Katrina is a broad sustainability professional, with particular interests in community energy use and benchmarking sustainability performance. At Murdoch, she taught and coordinated across a range of sustainability aspects.

- **Mills Park Redevelopment**  
2015-2017  
Project Manager for the ESD/ GreenStar Public Buildings rating for the City of Gosnells' \$47M redevelopment of the Mills Park sport & recreation precinct. Project was recently certified as the first 6 Star rated Public Building in Australia.
- **Confidential Oil and Gas Client**  
2013  
Study manager for sustainability initiatives and potential rating of Operations Village and residential housing development, including liaison with rating scheme developers (GBCA), design and engineering team, identification of sustainability initiatives.
- **Confidential Oil and Gas Client**  
2013  
Technical review of construction and operational waste management plan.
- **Glenfield Beach Development**  
2011  
Strategic advice during the structure plan development for the Glenfields Beach development
- **Batavia Stage 2 Development** 2010  
Strategic advice to LandCorp, including identification of potential sustainability initiatives and rating schemes
- **Onslow Due Diligence** 2010  
Advice in development of sustainability objectives for Onslow revitalisation project
- **QEII Medical Centre Carpark** 2011  
Development of sustainability indicators for tender response for construction of new carpark at QEII Medical Centre
- **Knutsford Precinct Redevelopment** 2011  
Development of residential sustainability initiatives as part of the Georgiou/Fini team selected as preferred proponent for the redevelopment of the Knutsford Precinct.

## *Stakeholder and Community Engagement*

Katrina has been a professional science and environmental communication professional for the past 20 years. She has worked across a wide range of print, broadcast and online media and diverse audiences including stakeholders and the community.

- **METRONET Bellevue and Midland Station Planning Phase** 2018  
Kat is leading the stakeholder consultation activities, including the facilitation of the multi criteria assessment for project options for the proposed extension of the Midland passenger rail line to Bellevue and redevelopment of the precinct surrounding the existing Midland Station.
- **World Bank – Emerging Practices in Building Power Sector Resilience to Weather and Geological Risks** 2014-2015  
Kat led stakeholder consultation activities, including the development and analysis of a survey to identify current and emerging practices used by the power sector to manage weather and geological risks.
- **MAX Light Rail** 2013-2014  
Technical lead for the delivery of the Social Impact Assessment for the Perth light rail project, Metro Area Xpress (MAX)
- **Fleet Resources** 2010-2016  
Project manager, including community engagement advisor for seismic exploration program in South Carnarvon basin.
- **WA State Climate Change Adaptation and Mitigation Strategy** 2009-2011  
Led consultation activities with the CCAMS Director General's Steering Committee, consultation, provided editorial and technical support for Issues Paper.
- **Anketell Point Stakeholder Identification and Mapping** 2009  
Katrina provided initial stakeholder identification and mapping for groups associated with the early planning of Aquila Resources' proposed activities associated with the Port Bulk Loading facilities for their West Pilbara Iron Ore project.
- **Renewable Energy Information Files** 2002-2004  
Development and online production of internet based renewable energy fact sheets on renewable energy sources, technologies and applications for publication by the then Australian Greenhouse Office and Institute of Energy
- **Australian CRC for Renewable Energy** 1997-2003  
Project Leader for communications and informal education activities in the Centre. Key responsibilities involved the communications activities included the production and editing of Centre newsletters, promotional materials and media releases, identification, coordination and delivery of information and awareness raising programs for print and internet based media.
- **Fuel Cell Bus Trial** 2006-2007  
Development and delivery of information awareness raising program with WA Department of Transport and Transperth drivers participating the FCB trial
- **Energy Efficiency in Aboriginal Communities. UN International Centre for the Application of Solar Energy** 1999  
Stakeholder consultation, training needs analysis and development of energy efficiency program for implementation in indigenous communities in remote WA.
- **Green Loans Audience Research** 2007-2008  
WA coordinator of national program to investigate interest, drivers and communication strategies for the promotion of Federally funded program delivering sustainability assessments and subsidised funding for sustainability retrofits
- **Energy Action Australia Evaluation** 2005  
Technical lead for pre and post participation surveying school student perceptions and understanding of 'energy' as a result of the 'Energy Action Australia' education program
- **School and community perceptions of climate change** 2003-2004  
Development of survey methodology, population sampling and recruitment, and survey tool development. Analysis of data. Authorship of peer journal article on the survey findings
- **Communications in Cooperative Research Centres PhD Thesis** 1997-2006  
Development of desktop, and phone based survey methodology with qualitative and quantitative aspects to identify approaches and issues associated with the communication activities of researchers within these research centres. Analysis and reporting of data.
- **Evaluation of Interpretive Theatre Techniques** 1996  
Lead researcher responsible for the development of survey methodology with qualitative and quantitative aspects and survey instrument. Analysis and reporting of data.



## Carbon Management

Katrina has an extensive track record in carbon management, with a particular emphasis on the sustainable use of energy in residential, commercial and industrial projects. In addition to these specific projects, she taught, coordinated and undertook research in renewable energy and energy efficiency.

- **ACT Government – Carbon Neutral Pathway for the ACT's Transport Sector** 2016-2017  
 Kat was the technical lead working with the ACT Government to develop a range of strategic options and policy options for reducing carbon emissions from the transportation sector and developing modelling software that could be used to model the potential impact associated with a range of policy options.
- **International Partnership for Monitoring and Measurement Reporting and Verification (MRV) First Asian-Pacific Regional Workshop, Lead Facilitator** 2014  
 Kat was engaged as the lead facilitator for first Asian Regional Workshop on Monitoring and MRV held in Korea. The workshop involved participants from across the Asian Pacific Region representing countries with reporting obligations under the UNFCCC.
- **Main Roads WA- GatewayWA GHG Emissions Modelling and Inventory Development** 2012-2014  
 Kat was responsible for the development of a greenhouse gas emission inventory for the project which included modelling construction and operation emissions for the \$1 billion GatewayWA Perth Airport and Freight Precinct road upgrades project. She also completed a projection associated with Scope 3 (road user) emissions.
- **Main Roads WA- Perth Freight Link, GHG Emissions Modelling and Climate Change Risk Assessment** 2010  
 Kat developed the greenhouse gas emission model for the construction and operation phases of the of the \$600 million Roe Highway road upgrades project, including emissions modelling associated with road users for the no-build and build scenario . work formed part of the greenhouse gas impact assessment for the project.
- **Kimberley LNG Hub (James Price Point) Strategic Environmental Assessment** 2009-2012  
 Technical Lead greenhouse gas emissions and climate change. The Western Australian government proposed the development of a liquefied natural gas (LNG) precinct in the Kimberley region of Western Australia. Working with the foundation proponent, Kat led the greenhouse gas impact assessment for the construction and operation phases as well as the climate change risk assessment for the proposed project
- **Government of Western Australia, State Climate Change Adaptation and Mitigation Strategy, Mitigation Lead** 2009-2011  
 AECOM was engaged to assist the Government of Western Australia to develop a state climate change adaptation and mitigation strategy. Kat was overall project manager and provided strategic advice to the Office of Climate Change as well as technical and editorial review services during the development of the strategy.
- **Mermaid Marine Australia NGER Return** 2009  
 Preparation of reporting for National Greenhouse and Energy Reporting Act for MMA and its supply bases in Broome and Dampier
- **West Pilbara Water Pipeline** 2009  
 Kat prepared an operational carbon footprint for associated with the West Pilbara Water Scheme which supplies water to 10,000 customers in the remote Pilbara region of WA. Following completion of the footprint, Kat estimates the potential carbon price liability for a range of potential carbon price scenarios being considered by the Australian Government at the time of the project's development.
- **RTIO HiSmelt** 2012  
 Kat prepared an operational carbon footprint for the proposed HiSmelt (high intensity or direct smelting) facility. Kat also prepared an estimate of proposed carbon price liabilities
- **ACRE Information and Training Services** 1997-2003  
 Development and implementation of capacity building programs for engineers, technicians, community and schools on renewable energy, energy efficiency and general sustainability.

- **Main Roads WA – Access Alliance Biochar Investigation** 2008  
Kat led the investigation and evaluation of the potential for biochar use in roadside revegetation and rehabilitation activities and as a potential carbon sequestration project.
- **Main Roads WA – Access Alliance, Consulting Researcher** 2008  
Kat undertook a review of international approaches the pavement construction and identification of potential low carbon alternatives for Access Alliance. ResLab Training & Professional Development Project Development and implementation of capacity building programs for community, trade and professional sectors, particularly the sustainable use of energy in off grid regions in WA (Broome, Newman)
- **Energy Efficiency in Aboriginal Communities** 2000  
Stakeholder consultation, training needs analysis and development of energy efficiency program for implementation in indigenous communities in regional and remote WA with UN Centre for Application of Solar Energy
- **Energy Savings in Cities. United Nations Environment Programme** 2002-2004  
Kat was the Editor and Production Coordinator of the monograph *Energy Savings in Cities* produced for local, regional and national government officials with a particular focus on developing countries.
- **Energy Efficient Buildings** 2006-2009  
Coordination and teaching of fourth year and Masters level unit on energy efficient building design at Murdoch University
- **Energy in Society** 2004-2009  
Coordination and teaching of second year and Masters level unit on impact of energy including environmental and social impacts of conventional and alternative sources.

## Waste Management

Kat has delivered a number of waste management plans to support local government planning approvals, Green Star and Infrastructure Sustainability rating scheme requirements.

- **Millstream Development** 2018  
Revision of the operational waste management plan for the retail and serviced apartments development between Harper Terrace and Mend Street, South Perth.
- **Success Plaza** 2018  
Preparation of an operational waste management plan for proposed showroom and retail precinct proposed for Cockburn Central, Western Australia.
- **Wardens Cottage Redevelopment** 2017-2018  
Operational waste management plan for a heritage listed two storey mix used retail and hotel complex as part of the redevelopment of the former Fremantle Police Precinct.
- **Woolstores Redevelopment** 2017  
Operational waste management plan for a 5 storey mix used retail and hotel complex as part of the redevelopment of the Woolstores Shopping Centre, Fremantle
- **RMIT Waste Management Plan** 2017  
Operational waste management plan for the RMIT University's New Academic Street development.
- **Millstream Development** 2016-2017  
Operational waste management plan for a mixed use shopping and hotel complex development in South Perth.
- **Millstream Apartments** 2017  
Operational waste management plan for a mixed use retail and serviced apartments complex development in South Perth
- **GatewayWA** 2012-2014  
Construction and operational waste management plan for the Perth Airport and Kewdale Freight Access Project. Procurement and contracting of waste contractor. Development of waste tracking and reporting system. Management and reporting of waste statistics as part of third party certified sustainability rating scheme.
- **FiFo village** 2013  
Management and review of operational waste management plan for a prospective fly-in fly-out residential village for a major resource development in regional Western Australia.

## Climate Change

Katrina has undertaken a number of climate change assessments for IS rating projects, including”

- NorthLink Central Section 2017
- Perth Freight Link/ Roe Highway Extension project, 2010
- GatewayWA, 2012

In addition, Kat has led a several stand alone projects including:

- **Browse LNG (James Price Point) Strategic Environmental Assessment** 2010  
Kat led the climate change studies for the Strategic Environmental Assessment for the liquefied natural gas production facility which proposed to support offshore oil and gas in the Browse Basin off the Kimberley Region of WA.
- **Main Roads WA's Swan Catchment Vulnerability Assessment** 2009  
Identification of the climate change data available for the Swan Catchment and identification of higher risk areas resulting from strategic vulnerability assessment for Main Roads WA.
- **Batavia Adaptation Action Plan** 2010  
Local vulnerability assessment and adaptation planning for the Batavia group of councils (Geraldton-Greenough, Irwin, Chapman Valley, Northampton).

## EMS and Auditing

Katrina is a qualified ISO14001 auditor and has applied these skills to Environmental and Heritage Management Systems auditing and to assisting organisations transition to the 2015/2016 version of the Standard.

- **AECOM ANZ Operations – Development and implementation of ISO14001:2015 transition.** 2014-2018  
Kat lead AECOM's planning, preparation and implementation for transition from 2004 to 2015 Standard ahead of recertification in early 2018
- **Pilbara Ports Preparedness Audit** 2016  
Planning, execution and reporting of internal audit compliant with ISO14001:2015 requirements in preparation for Certification Audit
- **Mindarie Regional Council – Internal Environmental Management System Audit** 2014  
Planning, execution and reporting of internal audit compliant with ISO14001 requirements for the Tamala Park Landfill Facility.
- **DSEWPac Compliance Audit – Van Gogh FPSO** 2012  
Technical review of the audit plan and report associated with the audit of compliance with Commonwealth EPBC conditions.
- **Rio Tinto Iron Ore – Cultural Heritage Management System (CHMS) Audit** 2011  
Technical reviewer of the report prepared for the audit associated with assessing compliance of site operations with company's CHMS.
- **Davis Langdon – Internal Management System Audits** 2009  
Planning, execution and reporting of internal audits compliant with Davis Langdon's Information Management System requirements prior to their transition into AECOM.
- **AECOM Australia – Internal Information Management System Audits** 2010- 2018.  
Planning, execution and reporting of internal audits compliant with AECOM's ISO9001 and ISO14001 requirements for AECOM projects in the Perth Office.
- **Green Loans Audit Services** 2009-2013  
Kat was Chief Auditor for Australia (technical lead) to Householder, Loan Recipient and Company audits conducted as part of the Green Loans home sustainability assessment program.

## *Environmental and Project Approvals*

Kat has led a number of technical studies for environmental impact assessments for infrastructure and resource projects including:

- **Inland Rail: North Star to QLD Border EIS**  
Kat is leading the technical studies and EIS chapters in support of the Australian Rail Track Corporation's Inland Rail (Melbourne to Brisbane Freight Rail) project. The critical State Significant Infrastructure project is to be assessed under the bilateral agreement with the Commonwealth by the NSW Department of Planning and Environment
- **Inland Rail: QLD Border to Kagaru EIS's**  
Kat is leading the technical studies and EIS chapters in support of the Australian Rail Track Corporation's Inland Rail (Melbourne to Brisbane Freight Rail) project for four Queensland packages (Border to Gowrie, Gowrie to Helidon, Helidon to Calvert and Calvert to Kagaru) by the Queensland Department of State Development, Manufacturing, Infrastructure and Planning under the bilateral agreement with the Commonwealth.
- **Kondinin Solar and Wind Farm** 2017-2018  
Kat led the Planning Compliance Review and Landscape and Visual Amenity Assessment associated with the Development Application for the proposed wind and solar farm to be located in Kondinin, Western Australia.
- **WestConnex M4-M5 Link** 2017-2018  
Kat led the Response to Submissions for local government and agency stakeholders following public exhibition of the New M5 EIS.
- **Defence Aviation Rescue Fire Fighting Upgrades** 2017  
Kat delivered Environmental design reviews on facilities at seven bases in accordance with Department of Defence requirements.
- **Deniliquin Ethanol Plant** 2017  
Kat led the response to submissions following the public exhibition of the EIS which was awarded Environmental and Planning Approval.
- **WestConnex New M5** 2017  
Kat led the Response to Submissions for local government and agency stakeholders following public exhibition of the New M5 EIS.

- **Woodside Myanmar Exploration Program** 2016  
Kat led the technical review and editing activities for environmental impact assessments aligned to the Myanmar EIS guidelines for drilling and seismic programs offshore in the Rakhine Basin
- **Browse LNG (James Price Point) Strategic Environmental Assessment** 2010  
Kat led the greenhouse gas and climate change studies for the Strategic Environmental Assessment for the liquefied natural gas production facility which proposed to support offshore oil and gas in the Browse Basin off the Kimberley Region of WA.

## **Professional History**

October 2018 – Current

### **CmdrKat Consulting**

Owner

Dec 2008 – October 2018

### **AECOM Australia Pty Ltd**

Associate Director in Sustainability and Environment

Jan 2005 – Dec 2010

### **Murdoch University**

Senior Lecturer in Physics and Energy Studies

Nov 2003 – Jan 2005

### **Research Institute for Sustainable Energy**

(Murdoch University)  
Education & Training Manager

Feb 2003 – Nov 2003

### **Murdoch University**

Associate Lecturer in Energy Studies

Feb 1997 – Feb 2003

### **Australian CRC for Renewable Energy**

Project Leader – Information & Training Services

Dec 1991 – Feb 1997

### **Scitech Discovery Centre**

Science Communicator