
APPENDIX 6: Study Team

ARROW ENERGY

Gang Xia: *Vice President Major Pipelines*

Qualifications: MBA - Global Energy Management and Sustainable Development; Project Management Professional (PMI); Welding Technology and Equipment

Experience: Gang has 13 years global experience within the gas and petroleum pipeline sector. He has managed the construction of a number of pipelines and associated infrastructure, many of which were subject to complex geographical constraints.

Iain Burgess: *Project Manager*

Qualifications: B Sc Civil Engineering

Experience: Iain has a diverse range of experience working on large infrastructure projects in Australia, and around the world. He has worked on, and managed large projects since 1988.

Greg Lee-Manwar: *Environmental and Approvals Manager*

Qualifications: B Sc

Experience: Greg has 36 years of experience working in environmental management and impact assessment. He has worked extensively with Government and the private sector, undertaking impact assessments and regulatory approvals on a number of gas pipeline projects and other linear infrastructure projects

Linda Rapson: *Project Manager*

Qualifications: B Sc; M Sc (Eng)

Experience: Linda has over 20 years experience in project management, regulatory approvals and environmental impact assessment for the construction and operation of gas transmission pipelines, mining infrastructure, industrial and water treatment plants for a number of local and global clients.

Ian Grimmer: *Engineering and Estimation Manager*

Qualifications: Dip Civil Engineering; Post-grad Dip Project Management

Experience: Ian has in excess of 30 years experience in project, construction and engineering management on major infrastructure projects within Australia including natural gas, water and sewer pipelines and facilities and telecommunications installations.

Mervyn Smith: *Land Access Manager*

Qualifications: B Org Behaviour

Experience: Mervyn has 30 years experience in project managing both large infrastructure projects, as well as those related to significant telecommunication projects, both in Australia and overseas (New Zealand, Saudi Arabia and Pakistan).

Jeff Shepherd: *Route Selection Specialist*

Experience: Jeff Shepherd has 40 years experience as construction manager on natural gas pipelines both in Australia and internationally, including 25 years experience as General Manager – Pipelines and Project Manager for McConnell Dowell. Jeff is a recipient of the APIA 2000 Outstanding Contribution to the Australian Pipeline Industry award.

Roger Wecker: *Property and Valuation Consultant*

Qualifications: Certified Practising Valuer (Urban and Rural) QLD and NSW

Experience: Roger has over 25 years experience in both Government and Private in the Valuation of real estate in Queensland. This includes 15 years in the Electricity Industry specialising in easement valuation, negotiation and project management for the acquisition of transmission line corridors. He is also an Associate member of the Australian Property Institute and a Member of the Mapping Science Institute of Australia.

Jeanne Haynes: *Property Administrator*

Qualifications: Bachelor of Laws / Grad Dip Legal Practice

Experience: Jeanne has a commercial/property/leasing legal background, and has been involved in the resource sector for over 3 years as a property/contracts administrator.

Leanne Hintz: *Senior Native Title Coordinator*

Qualifications: B Sc; JD; Grad Dip Legal Prac; LLM

Experience: Leanne has over 20 years experience in government and private enterprise working with land based interests in rural and remote areas and has been a specialist Native Title lawyer for the past 6 years.

SINCLAIR KNIGHT MERZ

Damien Taylor: SKM Project Director

Qualifications: Bachelor of Science (Environmental), Griffith University, Queensland, 1992

Experience: Damien has 17 years of environmental assessment, auditing, EMS and regulatory experience in both the public and consulting sectors. He has extensive experience and knowledge in the administration of environmental protection legislation through the assessment of numerous applications for statutory approvals by negotiating, liaising and consulting with all levels of government, industry and the community into environmental management protection matters, both within Queensland and overseas.

Damian Williams: SKM Project Manager

Qualifications: Bachelor of Environmental Science (Environmental Management), University of Newcastle, Australia, 1999

Experience: Damian has 11 years experience as an environmental and planning consultant having worked in Australia and overseas. He has developed a wide range of skills in the management of environment and government approvals and the coordination of environmental assessments, field surveys and consultants. Damian has worked on a number of large Environmental Impact Assessments including major projects under the EP&A Act (NSW) and the EP Act (QLD).

Michelle Cottrell: EIS Coordinator

Qualifications: Graduate Diploma Urban and Regional Planning (Honours), Bachelor Built Environment (majoring in Urban and Regional Planning) (Honours)

Experience: Michelle has seven years professional experience in the private sector and has considerable experience with site suitability analysis, preparation and management of complex development applications, policy and strategic planning advice. Specific to this project, Michelle has had wide experience with coordinating environmental and planning specialists for large infrastructure projects and for large energy infrastructure clients.

Tim Rohde: Soils/Land lead

Qualifications: PhD (Mining Engineering), Post Graduate Diploma (Mined Land Rehabilitation), Bachelor of Environmental Science (Natural Resource Science)

Experience: Time has nine years environmental consulting experience in Australia and Indonesia. His work encompasses mining engineering, geotechnical engineering, unsaturated soil mechanics, soil science and geochemistry. Since 2004, Tim has specialised in mining waste characterisation including waste rock dumps, tailings storage facilities and heap leach piles. Tim also specialises in the closure and rehabilitation of waste rock dumps, tailings storage facilities and heap leach piles.

Kristelle Gentil: *Environmental Scientist*

Qualifications: Masters Degree in Chemical Engineering - ECPM, Strasbourg, France (2006), Masters Degree in Polymeric Materials - ULP Strasbourg, France (2006)

Experience: Kristelle has over four and ½ years experience in the consulting industry in the areas of contaminated site assessment (soil and groundwater – Stage 1 and 2 ESA) and remediation. She has assisted and project managed Stage 1 and Stage 2 site assessment works at various sites (Department of Defence, cattle dip sites, former gasworks sites (in Qld, NSW and SA), service station sites, funeral parlour and a former foundry).

Rebecca Philipp: *Surface Water Engineer*

Qualifications: Bachelor of Engineering – Civil (Honours), University of Queensland,

Experience: Rebecca is a surface water engineer with 6 year experience in flooding and surface water management for mining, road infrastructure and local government planning projects. Specific to this project, Rebecca has had experience in undertaking flooding and surface water assessments for environmental impacts statements (EIS) for projects situated within the Fitzroy Basin.

Warrick Shillito: *Air Quality and Greenhouse Gas Assessment*

Qualifications: Bachelor of Applied Science (Environmental Science) QUT 2002.

Experience: Warrick has over 8 years experience as an environmental scientist with 7 years focussing on air quality monitoring and assessments. He has significant experience in emissions testing and air quality monitoring for coal and gas fired power stations, oil refineries, chemical and timber manufacturing. He has experience in air quality assessments for coal mines, wastewater treatment plants, rail infrastructure and gas fired cogeneration facilities.

Jackson Yu: *Noise and Vibration*

Qualifications: Master of Environmental Science in Environmental Engineering, Griffith University, 2000. Bachelor of Environmental Engineering, University of Queensland, 1997

Experience: Jackson has over 13 years experience in architectural acoustics, environmental noise, industrial noise, road traffic noise and ground vibration. He has extensive experience with the management and mitigation of environmental, transportation and industrial noise from mines, smelters, power station, refineries, substations, railway, highway, busway and transportation corridors. Specific to this project, Jackson has had experience in undertaking noise assessments for the construction and operation of power and pipeline projects for environmental impacts statements (EIS).

Sarah Douglass: *Aquatic Ecologist*

Qualifications: Bachelor of Science in Environmental Biology (UTS 2006), Masters of Environmental Management (Major: GIS & Remote Sensing) (UNSW 2007)

Experience: Sarah has over 6 years experience in water quality and the ecology of aquatic ecosystems with extensive experience in the collection, identification and analysis of macroinvertebrates and fish throughout Australia.

Andrea Kanaris: *Social Impact Assessment*

Qualifications: Bachelor of Social Science –Community and International Development, University of Queensland, 2001, Graduate Diploma in Social Planning and Development, University of Queensland, 2002

Experience: Andrea is a Social Planner with 8 years experience across a broad range of areas including service planning, health, housing, homelessness, regulation. She is skilled in health and social impact assessment, community profiling, workforce development, project management, community engagement (including indigenous), and has consulted with stakeholders at all levels of government, non-government and the private sectors.

Hope Stevens: *Economic Impact Assessment*

Qualifications: Bachelor of Commerce (Economics) Griffith

Experience: Hope is an economist with 2 years experience. She has an acute interest in economic and financial assessment for infrastructure investment and macroeconomic analysis. Hope has recently undertaken an economic impact assessment of the Yarwun Refinery Closure Study, including development of mitigation strategies and is currently developing an Input/Output model for economic impact assessment of the Arrow Bowen Pipeline.

Peter McGown: *Geographic Information Systems*

Qualifications: Associate Degree Geographic Information System, University of Southern Queensland Remote Sensing Acquisition & Validation – CRCSI UNSW

Experience: Peter has over 8 years experience in Australia specialising in a wide range GIS techniques including spatial analysis, mobile GIS, imagery acquisition, image analysis, cartography, constraints mapping and hydrological modelling. Peter has been involved in many projects both for Government and private clients. He has significant experience with mobile mapping technologies and the ABS Census products. Peter is also the GIS team leader for the SKM Brisbane office and has significant experience in coordinating GIS mapping to meet time and quality deadlines for large projects.

ECOSM (TERRESTRIAL FAUNA)

Jason Richard: Ecologist

Qualifications: Bachelor of Applied Science, Southern Cross University (1996), Masters of Wildlife Management, Macquarie University (2005)

Experience: Jason has worked as a consulting ecologist for the last 15 years on a broad range of mining, infrastructure, urban development and strategic planning projects in Victoria, NSW, QLD, the Northern Territory and abroad. Jason has expertise in the preparation of baseline ecological (flora and fauna) surveys, vegetation mapping and conservation assessment, due diligence investigations, impact assessments, vegetation rehabilitation plans, conservation strategy development and preparation and implementation of threatened species management and monitoring plans.

Ben Nottidge:

Qualifications: Bachelor of Applied Science (Protected Area Management) – University of Queensland, 2001, First Class Honours (Animal Studies) - University of Queensland, 2002

Experience: Ben has conducted numerous ecological surveys and associated reporting across Queensland as part of the Environmental Impact Assessment and Ecological Assessment processes on projects ranging from residential developments to open cut coal mines, coal seam gas development areas and large linear infrastructure projects. Surveys and management associated with these projects have included detailed flora and fauna surveys, targeted threatened species surveys and habitat mapping utilising a wide range of methodologies, impact assessment and mitigation measures to reduce likely developments impacts of the above projects.

Stuart MacDonald:

Qualifications: Bachelor of Science, University of Queensland (2004), Bachelor of Science (Hons), University of Queensland (2005)

Experience: Stewart has completed various private reports to commercial clients detailing the results of ecological surveys undertaken as part of the Environmental Impact Assessment process. These reports contained detailed descriptions of survey methodology; results of fauna/flora surveys, including profiles of species of conservation concern; potential ecological impacts the proposed development might cause; and mitigation and offset strategies to deal with these impacts. Clients/projects have included open cut and underground coal mines, coal seam gas extraction and metalliferous mines.

Craig Marston: *Ecologist*

Qualifications: Bachelor of Applied Science (Honours Class 1), Queensland University of Technology, 2009, Bachelor of Applied Science (Distinction), Queensland University of Technology - Majoring in ecology and biodiversity, 2008.

Experience: Craig has been involved in a number of fauna and flora surveys and ecological assessments within South East Queensland and the Brigalow Belt. The work has varied from undertaking field assessment and reporting responsibilities for small ecological assessments for property development projects to assisting with detailed fauna and flora field surveys associated with the environmental assessment process for infrastructure projects such as mines and quarries.

Steve Marston: *Ecologist*

Qualifications: Bachelor of Environmental Engineering (Honours), Griffith University, Masters of Wildlife Management, Macquarie University (ongoing)

Experience: Steve is an ecologist with extensive experience in ecological assessment and environmental management gained over the past 15 years in the consulting field in Queensland, NSW and Victoria. Steve has prepared numerous ecological assessments of proposals against relevant national, state and local legislation and policy. He has also prepared the documentation for numerous projects under the Commonwealth Environment Protection and Biodiversity Conservation Act 1999.

Dave Hannah: *Ecologist*

Qualifications: Post Graduate Diploma Science, Conservation Biology, University of Queensland (1995); Bachelor of Applied Science, Natural Resource Management, University of Queensland (1993).

Experience: David Hannah is a senior fauna ecologist with approximately 15 years experience in fauna survey and research and environmental impact assessment. In the Central Queensland region, David has worked extensively with the Queensland Environmental Protection Agency undertaking Natural Heritage Trust funded fauna surveys in the central highlands of Queensland investigating the effects of tree clearing and habitat fragmentation on fauna communities. David has specific experience in the northern Brigalow belt and southern desert uplands through undertaking numerous fauna surveys on leasehold lands and more recently assessing the impacts of coal mining proposals on fauna and their habitats.

AECOM (TERRESTRIAL FLORA)

Con Lokkers: Flora Ecologist

Qualifications: Bachelor of Science (Honours), James Cook University (1982); Doctor of Philosophy, James Cook University (1990)

Experience: Con has 25 years experience in vegetation classification and assessments of land condition, plant diversity and invertebrate fauna. He has a thorough knowledge of vegetation issues across Queensland, Northern Territory and New South Wales and has extensive practical experience in flora surveys, vegetation monitoring, land rehabilitation, weed control, environmental impact assessment and environmental management planning. He has produced a wide variety of publications and reports, including a book on the rare and threatened flora of the Townsville region and revegetation strategies for Townsville and Thuringowa City Councils. Con has worked closely with State and Commonwealth agencies, local government authorities, academic and research institutions, community groups and industry and has a comprehensive working knowledge of legislation, policies, codes and guidelines at Commonwealth, State, regional and local levels.

Jodi Wood: Flora Ecologist

Qualifications: Bachelor of Science in Ecology, University of Queensland (2007)

Experience: Jodi is an environmental scientist with four years experience in undertaking flora assessments, fauna habitat assessments, threatened species surveys, weed surveys and environmental monitoring. Jodi has developed professional skills in identifying plant species from central, western and south-eastern Queensland and eastern New South Wales; understanding of Australian plants and communities; landscape ecology and environmental management strategies. Jodi has also gained experience in Commonwealth and State legislation relevant to environmental management, especially vegetation management (Vegetation Management Act and Queensland Regional Ecosystem Classification) and environmental planning at the regional and local levels (regional management plans and planning schemes). She has worked on numerous coal seam gas projects in the Bowen and Surat Basins, including flora assessments for gas pipelines, wells, seismic lines and other associated infrastructure.

AUSTRAL RESEARCH AND CONSULTING (AQUATIC FAUNA)

Dion Iervasi: *Aquatic Ecologist*

Qualifications: Bachelor of Science (Environmental) (Honours), Monash University, 1998. PhD, Deakin University, 2008.

Experience: Dion has completed a PhD in wetland ecology and has worked as an ecologist for over 10 years. I have experience in managing large projects such as EIS and EES for large infrastructure projects. Previously, he was the principal field ecologist for SKM and worked on a wide range of aquatic survey projects across Eastern Australia.

OSD (CONSTRUCTABILITY)

Chris Hughes: *Principal Pipeline engineer*

Qualifications: Chartered Professional Engineer, Registered Professional Engineer of QLD.

Experience: Chris has been a qualified Mechanical Engineer since 1969 and has over 25 years experience in the oil and gas industry. Chris's extensive experience includes pipeline and facilities engineering with expertise in design, construction and commissioning. He has significant experience in natural gas delivery to gas fired power plants and a keen focus on delivering cost effective and long-term efficient projects. Chris is providing a 'third party' review service for the project with a key focus on pipeline constructability.

GHD (HYDROLOGY)

Lucy Glass: *Civil Engineer, Water*

Qualifications: Bachelor of Engineering, Civil, University of Tasmania (1st Hons)

Experience: Lucy is a civil engineer who has over six years industry and consulting experience, specifically focussed on Water and Wastewater Planning. Her key experience areas include Hydraulic Modelling, Water and Sewer Network Master Planning, Capital Works Feasibility Studies and Strategic Infrastructure Option Assessment and Analysis.

James Skene: *Civil Engineer*

Qualifications: Bachelor of Engineering, Environmental (Hons)

Experience: James is an Environmental Engineer with over 11 years experience at GHD. He has managed and delivered projects involving water and wastewater design, water and wastewater modelling, integrated water management, stormwater and industrial waste treatment design, stormwater quality monitoring, environmental assessment, and site contamination assessment.

GHD (TRAFFIC AND Transport)

Matthew Dudley: *Civil Engineer*

Qualifications: Bachelor of Engineering (Civil), University of Natal, 2003

Experience: Matthew is a Civil Engineer with six years experience in the fields of Traffic Engineering and Transport Planning obtained working in the United Kingdom and with GHD in Australia. His experience has been gained working on projects primarily in the fields of public transport/bus priority, cycle schemes, cycle/pedestrian shared use schemes and traffic assessments. Matthew has a range of experience encompassing scheme feasibility, traffic assessments and preliminary design through to detailed design and construction.

Steven Konstas: *Civil Engineer*

Qualifications: Bachelor of Engineering (Civil) first Class Honours, University of Technology Sydney, 1999

Experience: Steven has over thirteen years experience in the planning and leadership of multi-discipline transport planning projects with an understanding of risk management, contingency planning and the delivery of projects at local, regional and national levels. His experience encompasses detailed technical skills obtained in field investigation, project management, traffic engineering, integrated land use and transport planning, contract administration, data analysis and identification of counter measures to mitigate adverse traffic and transport problems.

GHD (FLOOD)

Asaad Kamal: *Environmental Engineer*

Qualifications: Bachelor of Engineering (Agriculture), Master of Environmental Engineering (Honours), Griffith University, Queensland

Experience: Asaad is an Environmental Engineer working in the Waterways and Coastal Group. Asaad has more than two years experience in hydrology and hydraulics, including knowledge in the fields of Remote Sensing and GIS.

Andrew Nichols: *Principal Environmental Scientist*

Qualifications: BSc Chemistry & Geography 1980, MSc Hons Physical Geography 1989, COPs – Environmental Law and Planning 2001/2

Experience: Andrew has twenty nine years experience in a variety of fields including stormwater infrastructure, erosion and sediment control, floodplain management, water quality, wastewater asset management and environmental management. Andrew is also a highly proficient technical writer.

CENTRAL QUEENSLAND CULTURAL HERITAGE MANAGEMENT (CULTURAL HERITAGE)

Luke Godwin - Director

Qualifications: BA (Hons) and PhD (1990) from University of New England

Experience: Dr Godwin has 30 years experience in cultural heritage management, focusing on NSW and Queensland but with experience in most other states and territories as well. Dr Godwin has worked both as a private consultant and in government, and held various University-level teaching positions. He is currently Associate Professor (Adjunct) in the School of Archaeology, Anthropology and Sociology – James Cook University.