

2. STUDY TEAM

The Arrow LNG Plant supplementary report to the Environmental Impact Statement (SREIS) has been a collaborative effort by multiple individuals and organisations. Key team members from the proponent, lead environmental consultant, and environmental impact assessment specialist consultancies are acknowledged in this chapter.

2.1 Proponent – Arrow CSG (Australia) Pty Ltd

The proponent organisation for the Arrow LNG Plant is Arrow CSG (Australia) Pty Ltd (Arrow Energy). The management and technical team consisted of individuals from Arrow Energy and representatives from Shell Projects and Technology (Table 2.1), who, on behalf of Arrow Energy, were responsible for the completion of the front end engineering and design (FEED) that resulted in changes in project description addressed in the SREIS.

Table 2.1 Arrow LNG Plant management and technical team

Team Member	Project Role	Qualifications and Years of Experience
Hilary Mercer	Vice President – LNG and Integration	MA (Oxon) Engineering Science, Fellow of Institution of Mechanical Engineers.
Paul Neilson	EIS Manager	BSc (Geoscience), GradDip (Education). 16 years experience.
Gerard Coggan	EIS Strategic Advisor	BEng (Civil and Environmental), MEngMgmt, DipProjMgmt. 16 years experience.
Michael Lampp	LNG Plant EIS Project Manager	BSc (Earth Science and Geology). 15 years experience (9 years oil & gas).
Mathew Cosgrove	EIS Coordinator	BSc (Env Science), Grad CErt - Env Mngt 9 years experience.
Linda Wulf	EIS Coordinator	BA (LIS), BBus (HRM), Dip (LS). 14 years experience.
Louise Bredenhann	EIS Project Officer	4 years experience.
Johan Goudriaan	Front End Design Team: Project Manager	MSc (MechEng). 30 years experience.
Frederic Viel	SGSI Home Office Team Lead Project Engineer and Tunnel Project Manager	MSc (Eng Math), PhD (Eng Math). 15 years experience oil and gas.
Rajeswari K.Ramasany	SGSI Home Office Environment and SP Senior Consultant	MSc (Env Diagnostics), PhD (EnvSci). 15 years experience (2 years in oil and gas).
Gaia Antonucci	LNG Project Engineer	MEng (Chem), Registered Chartered Engineer. 16 years oil & gas experience.
Ian Rogers	Residence Engineering Team Civil Engineer	MEng, MSc, DIC, CEng MICE. 25 years engineering experience (11 years in LNG).
Kevin Daubner	Marine Advisor	Master foreign going, petroleum and gas endorsements. HND Nautical Science. 37 years in industry, 27 years at sea, 5 years as Captain.

Table 2.1 Arrow LNG Plant management and technical team (cont'd)

Team Member	Project Role	Qualifications and Years of Experience
John Franklin	LNG Plant Asset Manager	FIChemE, CE. 35 years experience.
Tony Bermingham	Tunnelling Engineer	Dip Civ Eng, CPEng, Fellow of IE Aust (Retired). 36 years engineering, 6 years engineering surveying experience.
Peter Kerr	LNG Business Services Manager/PM for Tunnel and LNG Plant Offplot Facilities and Early Works	BEng (Civil Hons), Grad Dip of Mngt. 19 years experience (11 years oil & gas)
Sean Moloney	Project Engineer, Infrastructure	AD Civil Eng, BEng (Civil), MBA (Tech Mgmt), MIEAust, RPEQ. 17 years experience (7 years oil & gas)
James McNicol	Project Engineer, LNG	BEng (Mining). 14 years experience.
Shahida Abdullah	Front End Design Team: Senior Project Engineer	BSc (ChemEng). 15 years experience.
Alexandre Santos	Lead Process Engineer	MSc (ChemEng). 15 years experience.
Fabien Nieber	Front End Design Team: Project Engineer for Modules and Construction	BCivil Eng/BComm. 8 years experience in civil and construction (4 years on LNG 6 years in construction).
Huib Verschoof	Front End Design Team: Lead Project Engineer	MSc (Chemical Equipment). 14 years experience in oil and gas.
Yue Feng Zhao	Front End Design Team: Process Engineer	MSc (Chemical Process). 8 years experience in oil and gas.
Chio Yong Hii	Front End Design Team: Lead Discipline Engineer	BScs, CEng. M.I.Mech.E. 28 years experience in oil and gas.
Sanjeev Kumar	Front End Design Team: Utility Engineer	BTech (Mechanical Engineering). 18 years experience in oil and gas.
Tom Chupick	Preparation support and TA2 verification of GHGEMP and utility integration issues.	BSc (Chemical Engineering). 15 years energy, utility and co-generation experience (LNG sites, refinery technology and operations).
Sajali Hj Kip	SGSI Home Office Environment and SP Principal Consultant	BSc (Physiology and Chemistry). 29 years upstream oil and gas (22 years environment).
Teri Lillington	Health Project Owner Occupational and environmental physician.	B.M., B.S., G.D.O.H., F.A.F.O.M. (R.A.C.P.). 23 years experience in occupational medicine speciality field, 29 years total experience as a medical practitioner.
Simon Chynoweth	Technical Reviewer for Hazard and Risk Study	BSc and PhD (Math). 23 years of experience in the oil and gas industry and 15 years in major hazards and HSE.
Lai Chin Yin	Major Hazard Management Expert	MSc (Env). 7 years experience in oil and gas.
Geoffrey Borg	Technical Reviewer of Soil and Groundwater studies	MSc (Hydrogeology and Groundwater Management). 18 years remediation of contaminated land.

2.2 Environmental Lead - Coffey Environments Australia Pty Ltd

Coffey Environments Australia Pty Ltd (Coffey Environments) were commissioned by Arrow Energy as lead environmental consultant on the Arrow LNG Plant. The Coffey Environments management and technical team is shown in Table 2.2.

Table 2.2 Coffey Environments SREIS project team

Team Member	Project Role	Qualifications and Years of Experience
Barton Napier (Senior Principal)	Project Director Strategic Advisor	AssocDip of Applied Science (Computing), Certificate of Technology (Survey and Mapping). 35 years experience.
Christopher Doig (Principal)	Project Manager	MEnvMgmt, BSc (Australian Environmental Studies). 22 years experience.
Emma Waterhouse (Principal)	Strategic Advisor	BSc (Botany and Zoology), MSc (Resource Mgmt) (Hons). 20 years experience.
Michael Wright (Principal)	SREIS Author Technical Reviewer	BEng (Civil). 15 years experience.
Joanne Lockyer (Senior Associate)	SREIS Author Technical Reviewer	MAppLaw (Environment Law), BA (History and Political Science). 10 years experience.
Robert Worrall (Senior Associate)	SREIS Author Technical Reviewer	BEng (Civil), MNatRes, DipBus (Frontline Management). 21 years experience.
Tasha Latham (Associate)	Studies Coordinator SREIS Author	MSc (Planning and Environment), BSc (Environment). 9 years experience.
Andrew Jensen (Senior Consultant)	Studies Coordinator SREIS Author	BSc (Geography) (Hons). 6 years experience.
Suzanne Giles (Senior Consultant)	Studies Coordinator SREIS Author	BEnvMgmt (Sustainable Development), BLaw. 3 years experience.
Lucy Thomas (Consultant)	Studies Coordinator SREIS Author	BSc (Zoology). 3 years experience.
Julie Pearce (Consultant)	Studies Coordinator SREIS Author	BEnvSc (Wildlife Conservation and Biology). Diploma in Natural Resource Management. 2 years experience.
Ellie Thackray (Consultant)	Studies Coordinator SREIS Author	BSc Environmental Geology (Industry) (Hons). 5 years experience.
Erinn Kelly (Consultant)	SREIS Author	BEnvPolMgmt (Geographic and Environmental) (Hons). 2 years experience.
Michael Drowley (Consultant)	SREIS Author.	BSc EGS (Hons). 3 years experience.
Francisco Niera (Senior Associate)	SREIS Author	BSc. (Marine Biology), PhD (Biological Sciences). 31 years experience.
David Gwyther (Senior Principal)	SREIS Author	BSc (Zoology), MSc (Marine Biology), PhD (Fisheries Biology). 25 years experience.

Table 2.2 Coffey Environments SREIS project team

Team Member	Project Role	Qualifications and Years of Experience
Ana Lara-Lopez (Senior Consultant)	SREIS Author	BSc. (General Biology), MSc (Marine Biology), PhD (Marine Biology). 11 years experience.
Heath Synnott (Senior Consultant)	SREIS Author	BSc (Forestry), BA (Political Science). 6 years experience.
Mat Langworthy (Senior Consultant)	SREIS Author	BEnvSc (Ecology), AscDip of Horticulture, GradDip of Project Management. 15 years experience.
Thomas Wiltshire (Consultant)	SREIS Author	BSc (Ecology and Evolutionary Biology). 1 year experience.
Helen Unkovich (Senior Consultant)	GIS Support.	BSc. Psychology 6 years experience.
Gareth Lewis (Senior Consultant)	GIS/Drafting Support.	BA (Graphic Design) (Hons). 6 years experience.
Penny Flannigan (Senior Consultant)	GIS Support.	7 years experience.
Vanessa Saywell (Consultant)	GIS Support.	BA (Graphic Design). 3 years experience.
Felicity Thompson (Graphic Designer)	GIS/Drafting Support.	BA Visual Arts (Photography Major, Design Minor). 11 years experience.
Liz Jacobsen (Technical Editor)	Technical Editing.	AssocDeg SocSc. 30 years experience.
Jill O'Neil (Finishing Editor)	Formatting.	25 years experience.
Andrew Flint (Coffey Projects, Project Assistant Manager)	Project Coordinator	B. Construction Management (Building) (Hons). 3 years experience.
Dean Jones (Project Management Assistant)	Administrative Support/Formatting.	1 year experience.
Emma Jones (Project Management Assistant)	Administrative Support.	1 year experience.
Kristen Wicks (Senior Consultant)	Supporting Project Manager. (Previous)	BSc (Zoology and Ecology). 3 years experience.
Tarni McKay (Project Administration)	Project Controller. (Previous)	BBus (Human Resource Management). 10 years experience.

2.3 Environmental Impact Assessment Technical Specialists

A number of technical specialist consultancies were engaged by Coffey Environments to complete detailed assessments for disciplines covered by the EIS. These organisations and individuals are shown in Table 2.3.

Table 2.3 Environmental impact assessment technical specialists

Discipline	Company	Team Member	Qualifications and Years of Experience
Terrestrial Ecology	3D Environmental	David Stanton	BSc Geology (Hons). 18 years experience.
		David Fell	Assoc Dip of Applied Science. 25 years experience.
		David Gooding	Assoc Dip of Cartography. 25 years experience.
	EcoSmart Ecology	Angus McNab	BSc (Zoology). 6 years experience.
		Mark Sanders	BAdvSc (Zoology) (Hons). 12 years experience.
		Nicholas Kilvert	BAppSc (Ecology) (Hons), BSc (Environmental Science and Ecology), BA (Journalism and Contemporary Studies). 4 years experience.
	Vital Signs Environmental Services	Steve Rose	BSc (Commercial Fisheries and Aquaculture) 10 years experience.
Coffey Environments	Peter Lowik	BSc (Zoology and Ecology), BSc (Geography) (Hons). 2 years experience.	
Coastal Processes	BMT WBM	Paul Guard	BEng (Civil) (Hons). 11 years experience.
		Ryan Shojinaga	BSc (Mathematics), BSc (Civil Engineering). 6 years experience.
		Craig Witt	BEng (Civil), GradDip in Hydraulic Engineering. 34 years experience.
Water Quality	Centre for Environmental Management, Central Queensland University (CQU) Australia	Amie Anastasi	Dip HthSc (Aromatherapy), BSc (Biomedical Science), BSc (Chemical Sciences), PhD. 5 years experience.
		Scott Wilson	BAppSc (Coastal Management), PhD. 16 years experience.
Sediment Characterisation	Coffey Environments	Matthew Conroy	BSc (Earth Sciences) (Hons). 7 years experience.
	Coffey Geotechnics	Ron McMahon	BEng (Agricultural). 32 years experience.
Marine Ecology Assessment	Coffey Environments	David Gwyther	BSc (Zoology), MSc (Marine Biology), PhD (Fisheries Biology). 25 years experience.
		Francisco Neira	BSc. (Marine Biology), PhD (Biological Sciences). 31 years experience.
		Ana Lara-Lopez	BSc. (General Biology), MSc (Marine Biology), PhD (Marine Biology). 11 years experience.
		Julie Pearce	BEnvSc (Wildlife Conservation and Biology). Diploma in Natural Resource Management. 2 years experience..

Table 2.3 Environmental impact assessment technical specialists (cont'd)

Discipline	Company	Team Member	Qualifications and Years of Experience
Marine Ecology Assessment (cont'd)	Coffey Environments	Lucy Thomas	BSc (Zoology). 3 years of experience.
Estuarine Ecology Assessment	Coffey Environments	David Gwyther	BSc (Zoology), MSc (Marine Biology), PhD (Fisheries Biology). 25 years experience.
		Francisco Neira	BSc. (Marine Biology), PhD (Biological Sciences). 31 years experience.
		Ana Lara-Lopez	BSc. (General Biology), MSc (Marine Biology), PhD (Marine Biology). 11 years experience.
		Julie Pearce	BEnvSc (Wildlife Conservation and Biology). Diploma in Natural Resource Management. 2 years experience..
		Lucy Thomas	BSc (Zoology). 3 years of experience.
Terrestrial Ecology – Shorebirds	Ecosure Pty Ltd	Scott Hetherington	GradCert (Environmental Management), Assoc Dip of Applied Science, Cert IV Workplace Training and Assessment. 14 years experience.
		Glenn Holmes	BSc (Zoology, Botany, Ecology), BSc (Zoology) (Hons), PhD (Zoology). 31 years experience.
		Brendan Cook	MEnvMgmt (Pest Management), BSc (Wildlife Biology). 7 years experience.
		Elvira Lanham	Doctor of Philosophy (Reptile Ecology), BEnvSc (Life Sciences) (Hons). 17 years experience.
		Carissa Free	BAppSc (Animal Studies) (Hons), PhD (Wildlife Ecology). 7 years experience.
		Rebecca Sims-Castley	BSc, BSc (Zoology), MSc (Zoology), MSc (Applied Remote Sensing). 6 years experience.
Traffic and Transport Assessment	GTA Consultants	Mac Hulbert	Assoc Dip of Civil Engineering, BE Tech (Civil). 20 years experience.
		Davin Brown	BE (Mechatronic). 4 years experience.
		Trish Robertson	BE (Civil). 7 years experience.
		Matthew George	BE (Civil). 2 years experience.
		Alexander Rozario	BE (Civil). 4 years experience.
		Trevor Northcott	BE (Civil). 5 years experience.

Table 2.3 Environmental impact assessment technical specialists (cont'd)

Discipline	Company	Team Member	Qualifications and Years of Experience
Consultation	JTA Consultants	Jan Taylor	BA (Economics & Government), LLB. 20 years experience
		Melissa Salisbury	B Beh Sci (Psychology), MSPD. 5 years experience.
		Victoria Clark	BA LLB. 2 years experience.
Air Quality	Katestone Pty Ltd	Ella Castillo	BPhysCompEng, BAcc 7 years experience.
		Christine Killip	BTech (Atmospheric Science). 17 years experience.
Plume Rise Assessment	Katestone Pty Ltd	Christine Killip	BTech (Atmospheric Science). 17 years experience.
		Andrew Vernon	MSc (Air Pollution Management), BSc (Environmental Science). 5 years experience.
Climate Change and Greenhouse Gas Assessment	PAEHolmes	Chaim Kolominkas	BE Env (Hons), MEnv Mgmt Pol. 10 years experience.
		Kelsey Bawden	BEnvEng. 11 years experience.
		Sarah Colson	BE (Chemical) (Hons). 4 years experience.
Preliminary Hazard and Risk Assessment	Planager	Karin Nilsson	BE (Chemical Engineering) 20 years experience.
		Dean Shewring	BE (Chemical) (Hons). 24 years experience.
		Deborah Gayen	BE (Chemical) 20 years experience.
		Ros Bongiorno	15 years experience.
Lighting Assessment – Turtles	Pendoley Environmental	Kellie Pendoley	BSc (Environmental Science), MSc (Chemical Oceanography), PhD (Biology). 27 years experience.
		Robert Ryan	20 years experience.
		Benjamin Goodsell	BSc (Astrophysics) (in progress).
		Jeremy Savage	BSc (Physics) (Hons), BSc (Mathematical Sciences).
Noise and Vibration Assessment	Sonus	Chris Turnbull	MEngSc, BE (Hons) (Mech), MAAS. 17 years experience.
		Jason Turner	BE (Mech) (Hons), MAAS. 9 years experience.
		Mathew Ward	BE (Mech) (Hons) 4 years experience.
Social Assessment	SKM	Owen Boushel	BA, MASR.
		Nicole Sommerville	BPlan (Hons), AscDip of Built Environment (Architecture), GradCert in Legal Studies.

Supplementary Report to the Arrow LNG Plant EIS
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