

## Appendix 1.1

### EIA Team Competencies

Role	Name	Company	Experience	Professional Qualifications and Relevant Experience	Professional Affiliations
<b>EIAR Reviewer</b>	Dan Garvey	Arup	24 years	<p>MSc Environmental Protection, Institute of Technology Sligo, 2008;            BA (Hons) Geography and Public Policy Studies, University College Cork, 1999;            Diploma in Construction Studies (Architectural Technology), Cork Institute of Technology, 1994.</p> <p>Dan has 24 years' experience in environmental impact assessment, industrial licensing, waste and GMM licensing, and planning. He has prepared more than 35 environmental impact statements / assessment reports.</p>	<p>Chartered Member of the Institution of Environmental Sciences            Chartered Geographer            Fellow of the Royal Geographical Society            Member of Earth Science Ireland</p>
<b>Introduction and Background</b>	Dan Garvey	Arup	24 years	As above	As above
	Simon Grennan	Arup	4 years	<p>BA in Science (Mod. in Geography), 2013;            MSc in Environmental Sciences, 2014.</p> <p>Simon has a wide range of environmental skills, including environmental impact assessment, waste management plans and air quality emissions studies.</p>	Ordinary Member of Chartered institution of Wastes Management
<b>Alternatives Considered</b>	Dan Garvey	Arup	24 years	As above	As above
	Simon Grennan	Arup	4 years	As above	As above

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Proposed Development	Dan Garvey	Arup	24 years	As above	As above
	Simon Grennan	Arup	4 years	As above	As above
	This chapter was prepared based on information supplied by Greenlink Interconnector Limited and its consultants, for the electrical elements, and Arup's civil engineers for the civil engineering elements.				
Construction Strategy	Dan Garvey	Arup	24 years	As above	As above
	Simon Grennan	Arup	4 years	As above	As above
	This chapter was prepared based on information supplied by Greenlink Interconnector Limited and its consultants, for the electrical elements, and Arup's civil engineers for the civil engineering elements.				
Planning and Policy	Ria Lyden	Arup	40 years	BE MBA  Consultant with Arup, with extensive experience in EIA, environmental due-diligence, and strategic advisory services.	Chartered Engineer with EI Fellow of the IEI Member of the IStructE
	Dan Garvey	Arup	24 years	As above	As above
	Simon Grennan	Arup	4 years	As above	As above

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Traffic and Transportation	Niamh O'Regan	Arup	7 years	<p>BEng, Civil and Environmental (Hons), University College Cork, 2012</p> <p>CEng, Engineers Ireland, 2018</p> <p>Niamh is a Senior Project Engineer within the Arup Transportation and Urban Design Team, with seven years' experience in roads and transportation projects including planning, design and analysis.</p> <p>Relevant project experience includes traffic analysis studies of local and regional networks including the N8 and N25, preparation of numerous Transport Assessments for private developments, and preparation of the Traffic Chapter of EIARs for Drehid Wind Farm in Co. Kildare in 2018, the King's Island Flood Relief Scheme and Custom House Quay Development in Cork in 2019.</p>	Chartered Engineer, Member of Engineers Ireland
	Ria Lyden	Arup	40 years	<p>BE MBA</p> <p>Consultant with Arup, with extensive experience in EIA, environmental due-diligence, and strategic advisory services.</p>	Chartered Engineer with EI Fellow of the IEI Member of the ISE
Air Quality and Climate	Simon Grennan	Arup	4 years	As above	As above

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Noise and Vibration	Cormac McKenna	Arup	8 years	<p>BEng Civil Engineering MSc Environmental Engineering</p> <p>Specialist in noise modelling assessment, air dispersion modelling assessment, EIAR co-ordination and industrial emissions licensing.</p> <p>Noise modelling and assessment for road schemes, industrial facilities, data centres, Environmental Noise Action Plans and hospitals.</p>	Member of Engineers Ireland
	Simon Grennan	Arup	4 years	As above	As above
Biodiversity	Carl Dixon	Dixon Brosnan	20 years	<p>BSc Applied Ecology, University College Cork MSc Ecology, University College Cork.</p> <p>Carl has completed biodiversity chapters for EIA/EIAR for a range of projects including large scale infrastructural projects. Examples include Indaver Waste-to-Energy Project, Shannon LNG Project, Skibbereen Flood Relief Scheme, Upgrade to Mallow WWTP. Smaller projects include ecological assessments for quarries, industrial facilities, pig units and housing developments.</p>	

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<b>Archaeology, Architectural and Cultural Heritage</b>	Rose Cleary	University College Cork	39 years	<p>BA Archaeology, UCC (1977) MA Archaeology, UCC (1980)</p> <p>Rose Cleary graduated in 1980 with a BA degree in archaeology from University College Cork and subsequently undertook masters research on the Newgrange prehistoric pottery assemblage. Her research interests lie in prehistoric pottery, with a particular interest in ceramic technology, petrology studies and characterisation of clay sources. She is also involved in long-term research on the prehistoric archaeology of north Munster, with particular reference to the Lough Gur landscape. She has extensive fieldwork experience, having undertaken excavations at numerous prehistoric sites in that region. She has published widely on projects connected to pipeline and infrastructural projects, including urban regeneration schemes in Cork city.</p>	<p>MIAI Fellow of the Society of Antiquaries (London)</p>

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Landscape and Visual	David Bosonnet	Brady Shipman Martin	24 years	<p>Bachelor of Agricultural Science (Landscape Horticulture) Diploma Information Systems</p> <p>David is a Landscape Architect with Brady Shipman Martin with over 24 years' experience in preparing landscape and visual assessments and landscape experience. He has been a partner in the practice since 2004, based in Cork.</p> <p>He has extensive experience in dealing with the landscape and visual issues of Environmental Impact Assessments/ Environmental Impact Assessment Reports, having worked on over 115no. LVIA reports.</p> <p>During his time with Brady Shipman Martin he has worked in all areas of the business including Landscape Assessment, Masterplanning, Planning and Design from project inception to handover.</p> <p>He is very interested in the use of digital technologies, such as GIS, in informing and helping to provide solutions to complex landscape issues.</p> <p>He has given expert witness evidence in formal planning inquiries.</p>	<p>Member of Irish Landscape Institute - MILI</p> <p>Chartered Member of the Landscape Institute (UK) - CMLI</p>

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<b>Land, Soils, Geology and Hydrogeology</b>	Greg Balding	Arup	6 years	<p>BA (Mod) Geology, Trinity College Dublin MSc Engineering Geology, University of Portsmouth</p> <p>Greg is a chartered Engineering Geologist in the Dublin Ground Engineering Group with 6 years' experience. He has a Master of Science degree in Engineering Geology. He has experience in geotechnical desk studies, geophysics, ground investigation supervision and interpretation. Resident Engineer roles include earthworks and soil stabilisation supervision.</p>	<p>Professional Geologist (PGeo) European Geologist (Eur Geol) Fellow of London Geological Society</p>

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	Gerry Baker	Arup	18 years	<p>MSc, Sustainable Management of the Water Environment, University of Newcastle-upon-Tyne (2001)                      BA (Hons), Trinity College Dublin (2000)</p> <p>Gerry is a hydrogeologist with over 18 years' experience in Ireland and internationally in Europe and Africa. His main areas of expertise are in groundwater supply development, groundwater modelling (conceptual, analytical and numerical), baseline characterisation of hydrogeological environments, dewatering design and implementation, karst hydrogeology, mine hydrogeology, hydrogeological risk assessment, environmental impact assessment, groundwater flooding, discharges to groundwater, water monitoring programme and implementation and oral hearing expert witness.</p>	<p>Institute of Geologists of Ireland: Professional Member (PGeo)</p> <p>Listed on IGI Register of Professional Qualified Geoscientists/Competent Persons: Regulated and Unregulated Waste Disposal/Contaminated Land Assessments</p> <p>European Federation of Geologists : Professional Member (EurGeol)</p> <p>International Association of Hydrogeologists (IAH): Member</p>

Role	Name	Company	Experience	Professional Qualifications and Relevant Experience	Professional Affiliations
	Marie Fleming	Arup	19 years	<p>BSc (Hons) Earth Sciences (2000)  MSc Engineering Geology (2006)  DIC Engineering Geology (2006)  PGcert GIS (2012)</p> <p>Marie is a chartered geologist whose experience includes geotechnical desk studies, geological mapping and analysis, geomorphology, geophysics, site investigation supervision and interpretation, slope stability in soil and rock, retaining wall and pile foundation design. Resident engineer roles include earthworks, piling works and slope remediation supervision.</p> <p>Marie has been the Lands &amp; Soils lead on various projects from large linear infrastructure projects to private developments providing expert advice on the environmental constraints and opportunities for projects associated with soils, geology and hydrogeology. This coincides with strong team management skills and experience in commercial and project management. She has prepared many geotechnical interpretative reports and Lands and Soils chapters for EIA's and has provided expert witness advice.</p> <p>Marie leads Arup's Applied Geology team in Europe and is the global Applied Geology Skills Network Lead.</p> <p>Marie is currently on the Institute of Geologists of Ireland (IGI) Working Group on the update to the EPA endorsed "Guidelines for the Preparation of Soils, Geology and Hydrogeology Chapters of Environmental Impact Statements".</p>	<p>PGeo (Professional Geologist) (2011)  EurGeol (Chartered European Geologist) (2011)  FGS (Fellow of the Geological Society)</p>

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Water and Hydrology	Alan Leen	Arup	11 Years	<p>BE (1st class Hons) Civil &amp; Environmental Engineering - University College Cork, 2008</p> <p>PgC (GIS) with distinction - Manchester Metropolitan University, 2012</p> <p>Certified Diploma in Project Management, IPMA, 2016</p> <p>Alan joined Arup in 2008 after graduating from University College Cork with a first-class honours degree in Civil and Environmental Engineering and is a key member of our Water team, specialising in the area of flood risk management. In his role as a Flood Risk Management engineer, he has been responsible for undertaking detailed hydrological analysis and hydraulic modelling, production of flood risk mapping and development and appraisal of flood risk management options.</p> <p>Alan has experience in the preparation of Strategic Flood Risk Assessments and has also prepared numerous Site Specific Flood Risk Assessments both for public and private sector clients. His knowledge and skills in the use of GIS is invaluable in the management of spatial data which is required for flood risk assessment and the production of high quality flood mapping, such as flood zone maps.</p> <p>Alan is skilled in the use of many engineering software packages, including AutoCAD, HEC-RAS, ISIS, Microdrainage, SEEP/W, ArcGIS and Microsoft Office software.</p> <p>Alan also has experience in many aspects of civil engineering projects, including preliminary scheme design, budget estimation, detail design of civil structures, preparation of tender drawings and documents, and contract administration.</p>	<p>Member of the Institution of Engineers of Ireland 2008</p> <p>Graduate Member of the Institution of Civil Engineers</p>

Role	Name	Company	Experience	Professional Qualifications and Relevant Experience	Professional Affiliations
Resource and Waste Management	Dan Garvey	Arup	24 years	As above	As above
	Janet Lynch	Arup	19 years	<p>BE (Hons) FETAC Cert in Waste Facility Management Certificate in Applied Project Management</p> <p>Janet has project managed preparation of resource and waste management strategies for construction and operation of the following developments:</p> <ul style="list-style-type: none"> <li>• Montrose Residential Development, Dublin</li> <li>• City Strand Masterplan and Phase 1 Development, Dublin</li> <li>• Wilton Plaza Masterplan, Dublin</li> <li>• Griffith Avenue Residential Development, Dublin</li> <li>• Stryker Springhill Expansion, Cork</li> <li>• N6 Galway City Bypass, Galway</li> <li>• Oberstown Detention Campus, Co. Dublin</li> <li>• Trinity College Biosciences Building, Dublin</li> </ul>	Chartered Engineer Member of EI Chartered Member of the Chartered Institution of Wastes Management
	Simon Grennan	Arup	4 years	As above	As above

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<b>Population and Human Health</b>	John McAuley	Compliance Engineering International Ltd	39 years	BSc, MSc  John is managing director of Compliance Engineering International, which is one of the few consultancies with the capability to analyse and create solutions for all kinds of electromagnetic interference.	CEng, MIEI, MIEEE
	Dan Garvey	Arup	24 years	As above	As above
	Simon Grennan	Arup	4 years	As above	As above
<b>Material Assets</b>	Dan Garvey	Arup	24 years	As above	As above
	Simon Grennan	Arup	4 years	As above	As above
<b>Major Accidents and Disasters</b>	Dan Garvey	Arup	24 years	As above	As above
	Simon Grennan	Arup	4 years	As above	As above

Role	Name	Company	Experience	Professional Qualifications and Relevant Experience	Professional Affiliations
<b>Cumulative, Transboundary and Interactive Effects</b>	Dan Garvey	Arup	24 years	As above	As above
	Simon Grennan	Arup	4 years	As above	As above
<b>Summary of Mitigation Measures</b>	Dan Garvey	Arup	24 years	As above	As above
	Simon Grennan	Arup	4 years	As above	As above